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ABSTRACT

Over the next decade, distance learning will provide counselor preparation programs with a host of both opportunities and challenges. This user-friendly handbook helps counselor educators develop skills to teach students who are participating in distance learning classes. The purpose of this book is to help counselor educators and other faculty members expand their knowledge and skills of the distance learning technologies, methodologies, and related issues that are necessary to develop distance learning courses. Part one provides a conceptual framework of distance learning terminology and theoretical underpinnings. Part two provides a discussion of the "how to" of the planning process within the context of counselor preparation. Part three focuses on a description of the issues involved in teaching a counseling course via the two most commonly used distance learning technologies-- videoconferencing and online courses. Finally, part four furnishes a description of various software tools used by faculty in the preparation and delivery of distance learning courses. In addition to this text, each of the chapters is supported by a set of web pages that provide updated information concerning innovations and changes in distance learning technologies and related issues. (Contains 117 references and an index.) (GCP)

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HIGH TECH / HIGH TOUCH

Distance Learning
in
Counselor Preparation

Annette C. Albrecht

&

Dennis G. Jones

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HIGH TECH / HIGH TOUCH

Distance Learning in Counselor Preparation

Annette C. Albrecht Dennis G. Jones
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High Tech / High Touch: Distance Learning in Counselor Preparation

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Preface

Who Should Read this Book?

Counselor preparation faculty members who are contemplating the prospect of delivering a course via distance learning should consider the issues addressed within the chapters that follow. Counselor educators have ethical obligations to be skilled as teachers. Therefore, if counselor educators are going to teach via distance learning, they need to develop skills in the use of these teaching technologies prior to utilizing them with their students. This book will provide counselor educators with a framework for developing the skills necessary to teach in a distance learning environment.

What Makes this Book Different?

The marketplace contains a plethora of books concerning online or interactive television courses. However, few books address multiple distance learning delivery technologies. Most of these books contain examples involving disciplines such as English, math, science, business, etc. To date, no books are known to the authors that focus solely on distance learning in counselor preparation. Due to the unique nature of the counseling curriculum, many of the examples provided in "generic" distance learning books would hold little relevance to a counselor educator.

Additionally, purchasers of this book will be able to access a companion web site that will provide: (a) updated information concerning the topics covered in each chapter, (b) links to counselor preparation-related web sites, (c) links to tutorials for using software tools to support distance learning, and (d) links to web sites of counseling courses.

Why Should a Counselor Educator Read this Book?

Over the next decade, distance learning will provide counselor preparation programs with a host of both opportunities and challenges. In terms of opportunities, distance learning will (a) open doors for students who previously lacked access, (b) help increase, or at least maintain, enrollment levels in a changing marketplace, and (c) provide transferable skills for faculty members which can be incorporated into traditional face-to-face classrooms. In terms of challenges, distance learning efforts will (a) continue to draw resources from other program initiatives, (b) be resisted by many counselor education faculty members, and (c) continue to require faculty members to gain competence in using new technologies (i.e., as a faculty member begins to gain competence in the use of a current distance learning technology, it may become obsolete and be replaced with a different technology).

The changing demographic profiles of potential students suggest the need to provide different ways for students to access counselor preparation programs. More and more potential counselors-in-training are "place-bound" (i.e., it is difficult or impossible for them to travel to campus on a regular basis) or "time-bound" (i.e., it is difficult or impossible for them to attend classes at a certain time on a regular basis). Therefore, counselor educators need to look at distance education as a means of providing both place-bound and time-bound students access to counselor preparation programs.

How Does Distance Learning Fit in Counselor Preparation?

In an ERIC digest entitled *The Role of Assessment in Counselor Certification*, Clawson (1995) stated:

> Processes must be developed that compare home study and other methods of delivery with traditional campus experiences. This may be done by designating which areas of study must be delivered by traditional professor/student/classroom methods and which courses may safely use nontraditional techniques such as distance learning.

However, contrary to Clawson's position that only certain counseling courses may be "safely" taught using distance learning, this book and the companion web site will provide users with tips and techniques for integrating distance learning technologies into the teaching of both content-based and skill-based counseling courses.

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Chapter One

Counselor Preparation Goes the Distance

Distance education is not a new delivery methodology for higher education. In fact, distance education has been around since the days of print-based correspondence courses. However, in the early days of print-based correspondence courses, it was not called "distance education." Since that time, emerging technologies have opened opportunities for transforming the role of students from being passive recipients of information into being active participants in the process of education. With this potential came the birth of new instructional delivery modes that have been labeled "distance education."

Currently, distance education lacks a single definition. However, a common theme underlying many definitions of distance education is that (a) space and/or time separate students from teachers and (b) technology is used to bridge this separation. Some examples of definitions of distance education follow:

- Distance education "consists of instruction through print or electronic communications to persons engaged in learning in a place or time different from that of the instructor(s) or other students" (Hill, 1997, p. 75).
- Distance education "takes place when a teacher and student(s) are separated by physical distance and technology (i.e., audio, video, data, and print), often in combination with face-to-face communication" (Willis & Dickinson, 1997, p. 81).
- Distance education is "the acquisition of knowledge and skills through mediated information and instruction. Distance learning encompasses all technologies and supports the pursuit of life long learning for all" (United States Distance Learning Association, n.d.).
- Distance education is "defined as a planned teaching/learning experience that uses a wide spectrum of technologies to reach learners at a distance and is designed to encourage learner interaction and certification of learning" (University of Wisconsin-Extension, Continuing Education Extension, Distance Education Subgroup, 1999).
- Distance education is "instructional delivery that does not constrain the student to be physically present in the same location as the instructor. Historically, Distance Education meant correspondence study. Today, audio, video, and computer technologies are more common delivery modes" (Distance Learning Resource Network, 1995).
- Distance education:

  refers to education or training courses delivered to remote (off-campus) location(s) via audio, video (live or prerecorded), or computer technologies, including both synchronous and asynchronous instruction. Courses conducted exclusively on campus, as well as

> classes conducted exclusively via written correspondence, are not included in this definition of distance education (although some on-campus instruction or testing may be involved, and some instruction may be conducted via written correspondence). In addition, . . . distance education does not include courses in which the instructor travels to a remote site to deliver instruction in person, although courses may include a small amount of on-campus coursework or labwork, on-campus exams, or occasional on-campus meetings. (U.S. Department of Education, 1999a, p. 2)

Understanding Distance Education

As indicated earlier, a common theme underlying these definitions of distance education is that (a) space and/or time separate students from teachers and (b) technology is used to bridge this separation. The following expands on these concepts.

Separation by Space and/or Time

Separation by space involves the teacher and the students being at different locations. For example, the teacher may be in a campus classroom and the students may be in a classroom at a community college in a town 50 miles from the campus, or the students could be at computers in their own homes or offices. In each situation, the teacher and students are not at the same location.

Separation by time refers to the idea that the teaching and the learning do not occur at the same time. In this situation, the teacher delivers the instruction at some point in time, and at a later point in time, the student receives the instruction. For example, in an online course, the faculty member would prepare the instructional materials and place them on the course web site for the student to review at a later date.

The concepts of separation by space and/or time are linked closely to two important concepts in the field of distance education: (a) synchronous and (b) asynchronous learning. Synchronous learning occurs when the teacher and the student(s) interact at the same time. Therefore, in the context of distance education during synchronous learning, teachers and students are separated by space. Synchronous education takes many forms but all share one common element: teachers and students need to "meet" at the same time. As an example, the course could be a two-way interactive videoconference between the campus and a remote classroom, a conference call between the teacher and several students, or a text-based computer "chat."

In the context of distance education, asynchronous learning occurs when the teacher and students are separated by time. In most asynchronous distance learning situations, the teacher and students are also separated by space. Asynchronous education takes many forms but all share one common element: teachers and students do not need to "meet" at the same time. To illustrate, the student could review a videotape of the instructor's lecture while eating breakfast, read and post ideas to an electronic bulletin board during lunch, or review materials on a course web site at night after walking the dog.

Bridging the Gap with Technology

In distance education, technology is used to bridge the space and time gap created between students and teachers. For instance, the space gap can be bridged using interactive videoconferencing technology that allows students and teachers to interact in "real-time" from classrooms on different campuses. Additionally, the time gap can be bridged using electronic bulletin boards that allow instructors to post questions at one time and students to respond to these questions at a different time.

In the rapidly changing field of distance education, major advances have been driven by changes in technology. These technological advances allow higher education institutions to extend their distance education beyond the limitations of the postal service (i.e., correspondence courses). These advances allow institutions to deliver instructional resources faster (and sometimes better). Specifically, the rapid advance in the computer and the telecommunication technologies has redefined the possibilities for distance learning today and will continue to redefine distance learning in the future. Further, the growing convergence of the computer and telecommunication industries will continue to reshape distance education.

National Perspective of Distance Learning Efforts

Distance learning is becoming a major factor in higher education. For example, almost every week the *Chronicle of Higher Education* has at least one story concerning some aspect of distance learning. Also, distance learning programs on campuses are being scrutinized by various accrediting agencies (e.g., regional accrediting bodies, professional associations). Furthermore, many institutions have developed administrative structures to support campus distance learning efforts.

Two recent major surveys of distance learning in higher education can help provide some perspective concerning the impact that distance learning is having on college campuses. Dirr (1999) conducted a study that was sponsored by the Western Cooperative for Educational Telecommunications. This was a mail survey of institutions in the 14 states served by the Western Interstate Commission for Higher Education. The survey was administered during Spring 1997. Responses were received from 417 institutions (40.6% response rate). Although the primary purpose of this survey was to focus on support services for distance learning students, the survey also provided data concerning more general distance learning issues. Following are some of the findings from Dirr's report:

- Distance learning courses were offered by 96% of the public four-year institutions and offered by 51% of the private four-year institutions. However, in this survey, distance learning included "correspondence courses."
- Of the institutions offering distance learning opportunities, graduate level distance learning courses were offered by 68% of the public four-year institutions and offered by 18% of the private four-year institutions.

The results of this report suggest that distance learning is very common in higher education and graduate level higher education, especially in public institutions.

A second survey was conducted by the National Center for Education Statistics (U.S. Department of Education, 1999a) during the winter of 1998-1999. Data for this survey were collected concerning the 1997-1998 academic year and included "a sample of 1,612 institutions" (p. A-5). The weighted overall response rate was 92%. Following are some of the findings from the report concerning this survey:

- Distance learning courses were offered by 78% of the public four-year institutions and offered by 19% of the private four-year institutions. In this survey, distance learning did not include "correspondence courses."
- Of the institutions offering distance learning opportunities and graduate/ first-professional programs, graduate level distance learning courses were offered by 79% of these institutions.

Similar to Dirr's (1999) study, the results of this report suggest that distance learning is used widely in higher education and graduate level higher education, especially in public institutions.

Both of these surveys indicate that distance learning is becoming a major factor on college campuses. The reason for this phenomenon is related to three significant events.

1. Technological innovations have made it easier for institutions to provide distance learning opportunities.
2. Technology cost reductions have made it more economically feasible for institutions to provide distance learning opportunities.
3. The changing demographics and expectations of college students have made it more important for institutions to provide distance learning opportunities.

Changing Nature of Students in Higher Education

Today's graduate students are different in a number of ways than graduate students from even a few years ago. For example, today's graduate students tend to be older. According to the U.S. Department of Education (1999b), the median age of enrolled graduate students in Title IV eligible, degree-granting institutions during Fall 1997 was 30.6 years. Additionally, they noted that only 15.3% of graduate students were under the age of 25. Further, the data indicated that 57.1% of graduate students attend college on a "part-time" basis. Therefore, it appears that the majority of graduate students tend to be older individuals who are possibly working full-time and attending school part-time. This is the profile of an individual who because of other time commitments could find traveling to campus several times per week to be overwhelming in an already busy schedule. Franco-Berry and Murphy (2000) noted "from busy professionals in the city to the average person in rural areas, familial and occupational demands limit the ability for these prospective students to relocate or take time out of everyday activities to pursue an education" (p. 53). In distance learning terminology, Franco-Berry and Murphy have described students who are considered (a) "place-bound" and/or (b) "time-bound."

Place-bound students are those students who have difficulty attending traditional on-campus courses because either their residences may not be near the campus or other constraints make it difficult to travel to campus on a regularly scheduled basis. Place-bound students may best be suited to synchronous distance learning arrangements (e.g., interactive television courses that allow the student to attend class at a remote location near his/her residence).

Time-bound students are those students who have difficulty attending traditional on-campus courses because other commitments make it difficult to attend class at a particular time or day, or on a regularly scheduled basis. Time-bound students may be best suited to asynchronous distance learning arrangements (e.g., online courses that use web-based learning resources and electronic bulletin board-based learning activities).

Technology

Graduate students seem to have become more comfortable using technology. According to Miller (1997), a majority of people in the work force use computers at their place of employment. This is an example of how students are becoming (a) technologically competent and/or (b) technologically expectant. The presence of these factors would suggest that these students might be comfortable in a distance learning environment.

In the past, a lack of competence with technology may have hindered students in distance learning environments. However, as students become more technologically competent they should be successful in a distance learning situation because they will be less intimidated by the technology used in the teaching and learning process.

Furthermore, because many students previously lacked technological competence they may have preferred teaching and learning situations that minimized the use of technology. However, today's students understand the value of using technology as a tool, and many even expect technology to be used in the teaching and learning process.

Enrollment

According to the U.S. Department of Education (1998a), undergraduate enrollments in degree-granting institutions declined by 1.4% between Fall 1992 and Fall 1996. On the other hand, during this same time period, graduate student enrollment increased by 4.5%. An analysis of the data from two U.S. Department of Education (1998a, 1999b) reports indicated that graduate enrollment also increased from Fall 1996 to Fall 1997.

The U.S. Department of Education (1998b) projects increased enrollment of graduate students through 2008. According to Hollis (1997), this national trend of increased graduate enrollment is also being experienced in counselor preparation programs.

Changing Nature of the Marketplace in Higher Education

The enrollment data appear to suggest that many institutions should expect to experience increased enrollments in their counselor education programs. However, this is not necessarily accurate for several reasons.

In the past, institutions of higher education almost exclusively handled school counselor certification. In most situations, students seeking certification completed either a master's degree in counseling or a specified number of counseling-related courses. Today, the potential for offering alternative certification programs for school counselors has introduced the possibility of reducing enrollments in graduate counseling programs.

In the past, both public and private non-profit institutions almost exclusively offered graduate programs. Yet, in recent years many more private for-profit institutions have started offering graduate programs. According to the U.S. Department of Education (1999b), 1.4% of Fall 1997 graduate students were enrolled in private for-profit institutions. If the number of students in private for-profit institutions grows, both public and private non-profit institutions may experience a corresponding loss.

Implications for Counselor Preparation

This combination of factors (i.e., student demographics, technology-savvy students, and market forces) tends to suggest that the incorporation of distance learning into traditional counselor preparation programs may be appropriate for several reasons.

First, in order to maintain or increase enrollments, counselor preparation programs will need to find techniques to attract additional students from the geographical areas where they traditionally recruit students. One viable option for attracting these students is the incorporation of distance learning delivery into the curriculum.

Second, distance learning provides a means to reach out and attract students from other geographical locations. In the past, students interested in entering a specific program may have been hampered because of their lack of proximity to that campus. Distance learning allows for the breakdown of geographic barriers.

Third, distance learning provides a means to retain current students. In the past, students in a certain geographical area near a campus may have been hampered from entering other programs because of the physical distance from their homes to these programs. Distance learning allows other programs to break down geographic barriers. Therefore, in order to remain competitive, it may be necessary to incorporate distance learning delivery into the curriculum.

In addition to these market-related issues, there are several additional reasons for counselor education programs to consider the incorporation of distance learning delivery into the curriculum.

1. If faculty members currently travel significant distances to remote locations to deliver face-to-face courses, distance learning technologies may make it more convenient for these faculty members and may reduce their time away from the office.
2. If many students currently travel significant distances to campus for face-to-face courses, distance learning technologies may make it more convenient for these students and may reduce their time away from home.
3. In some counselor education programs, faculty members teach both on-campus and off-campus sections of the same face-to-face course during a given semester. In some of these situations, each section of this course may have an extremely small enrollment. When this is the case, distance learning technologies may make it possible to combine these two small sections into one course.
4. Many distance learning technologies provide students with ample time to reflect on an issue before dialoguing with the instructor and/or their peers. There is time for research, reflection, and integration of both facts and concepts.
5. In many distance learning environments, information is stored automatically in video, audio, or written form. These materials are organized and archived. Both the students and the teacher can have access to a permanent record of all work and commentary for later review or study.
6. Distance learning provides an excellent forum to develop an active student-centered learning environment. In counselor preparation programs,

these types of environments provide opportunities for counselors-in-training to further explore their own thoughts and feelings.

7. The various distance learning technologies can be incorporated to provide for different teaching strategies and learning styles and abilities. Further, these technologies can be combined with face-to-face interactions (i.e., the "hybrid" approach).

Organization of the Book

The purpose of this book is to help counselor educators and other faculty members to expand their knowledge and skills of the distance learning technologies, methodologies, and related issues which are necessary to develop distance learning courses. In addition to this text, each of the chapters is supported by a set of web pages that provide updated information concerning innovations and changes in distance learning technologies and related issues. The web site is located at:

http://www.albrecht-jones.com/distance/

Part I - Overview of Distance Learning provides a conceptual framework of distance learning terminology and theoretical underpinnings. Included in this section is *Chapter 2 - Distance Learning Opportunities and Challenges*. This chapter gives an introduction to distance learning with consideration of both the opportunities and the challenges facing higher education over the next decade. Also included will be a discussion of the results of research efforts concerning distance learning. Additionally, in this section is *Chapter 3 - Distance Learning Technologies*. This chapter sets forth a discussion of each of the primary technologies for the delivery of distance learning. Finally in this section is *Chapter 4 - Introduction to Instructional Design*. This chapter furnishes an overview of the instructional design process and discusses the importance of instructional design in a distance learning environment.

Part II - Distance Learning and Counselor Preparation provides a discussion of the "how to" of the planning process within the context of counselor preparation. Included in this section is *Chapter 5 - Ethical, Legal, and Related Considerations*. This chapter highlights a description of the special ethical and legal issues faced by counselor preparation programs. Also, it gives ideas on how these issues could be addressed in a distance learning environment. Included also in this section is *Chapter 6 - Where to Start and What to Do*. This chapter presents an understanding of the process for planning and preparing a distance learning course. Finally in this section is *Chapter 7 - Selecting Delivery Methodologies*. This chapter sets forth a model for selecting the most appropriate delivery methodologies for various types of counseling courses.

Part III - Counselor Preparation and Distance Learning Technologies focuses on a description of the issues involved in teaching a counseling course via the two most commonly used distance learning technologies. Contained in this section is *Chapter 8 – Interactive Television Courses*. This chapter presents the issues involved in teaching a counseling course via videoconferencing. Also part of this section is *Chapter 9 - Online Courses*. This chapter introduces the issues involved in teaching a counseling course via the World Wide Web (WWW or Web).

Part IV - Software Tools to Support Distance Learning furnishes a description of various software tools used by faculty in the preparation and delivery of distance learning courses. This incorporates a conceptual discussion of the tools rather than a tutorial on how to use specific software packages. Links to software tutorials are included on the companion web site. Included in this section is *Chapter 10 - Presentation Graphics*. This chapter focuses on understanding how to appropriately use a presentation graphics package. Also in this section is *Chapter 11 - Web Pages*. This chapter builds an understanding of how to effectively design a web site. Additionally, in this section is *Chapter 12 - Electronic Mail*. This chapter presents necessary information on how to effectively use e-mail as an instructional tool. Finally, included in this section is *Chapter 13 - Web Conferencing*. This chapter establishes an understanding of how to successfully use web conferencing as an instructional tool.

PART I

OVERVIEW OF DISTANCE LEARNING

2 Distance Learning Opportunities and Challenges
3 Distance Learning Technologies
4 Introduction to Instructional Design

Chapter Two

Distance Learning Opportunities and Challenges

Two forces have driven the evolution of distance learning: (a) supply and demand equilibrium and (b) advances in technology. In fact, almost every significant milestone in distance learning has been the result of one of these two forces.

In the context of supply and demand equilibrium, institutions of higher education have initiated distance learning efforts when these two factors fall out of balance. In the situation where demand for higher education exceeds supply, colleges and universities have instituted distance learning programs in an effort to meet this demand without bringing additional students into already overfilled campus classrooms. Conversely, in the situation where supply for higher education exceeds demand (i.e., empty classrooms), colleges and universities have instituted distance learning programs in an effort to attract additional students. As indicated in the previous chapter, in the near future for many counselor preparation programs, the latter reason may be the impetus for initiating distance learning programs.

Advances in technology have changed the face of the distance learning environment. However, these advances have not provided the emphasis for initiating distance learning programs. Instead, these advances in technology have influenced the nature of the distance learning programs in terms of the type and variety of instructional delivery systems that are utilized.

For example, the advent of radio led to the use of this technology as an instructional delivery system. This is also true for television, satellites, computers, and the Internet. Distance learning innovators have been very adept at incorporating various technologies as instructional tools. These innovators have developed techniques for successfully integrating many "general purpose" technological advances (e.g., telephone, facsimile, e-mail) into an instructional context.

History of Distance Learning

With the inception of the first formalized institutions of higher education, students were required to travel to such institutions because these selected locations housed most of the books and scholars of the world. However, with the advent of the printing press (i.e., a technological advance) the scarcity of books lessened. Consequently, as more volumes of books became available, scholars were able to travel to other locations and form new institutions of higher learning. Therefore, students did not need to travel as far, but it was still necessary to travel to one of these new universities.

Earliest Effort

According to Verduin and Clark (1991), the earliest example in the United States of the predecessor to modern distance learning, the correspondence course, occurred in the late 1720s. They reported that a teacher advertised in the *Boston Gazette* to teach shorthand by mail.

1890 - 1940

Prior to the 1940s, higher education remained rather exclusive, primarily for the rich and the elite. In general, up until this time, the supply and demand balance remained in equilibrium. However, from time to time there were slight fluctuations in this equilibrium as the result of population growth in urban areas and more people in rural areas seeking higher education opportunities.

Beginning in the late 1800s, many colleges first experimented with correspondence courses. According to Gooch (1998), "Major universities have utilized correspondence study courses since the 1890s to provide off-campus learning opportunities." The next innovation occurred as the result of advances in technology and the emergence of radio. According to Moore (1997), in the "first two decades of radio, at least thirteen colleges and universities offered university credit for classes on the air" (p. 1).

1940 - 1960

The return of military personnel from World War II during the 1940s and the enactment of the GI Bill changed the higher education supply and demand equilibrium. Thus, higher education was no longer exclusive; it had become an institution available to "common folk." Four-year public higher education institutions began to grow and community colleges emerged to meet the higher education demand in urban areas. Until these facilities could be built, demand for college courses was met through the use of correspondence courses. Therefore, this was the first wave of major distance learning efforts.

At the same time, military personnel also returned to rural areas of the country. Many of these areas lacked institutions of higher education. Consequently, correspondence courses were also used to meet the higher education demands of these rural students.

The correspondence course was higher education's first attempt at asynchronous distance learning. The first distance learning courses were exclusively text-based with instructors mailing materials to students and students mailing materials to instructors. With the advent of technology, the nature of correspondence courses began to change. Specifically, text-based materials provided by the instructor began to be accompanied with audio recordings. The first recordings were provided on "reel-to-reel" tapes and migrated to cassette tapes as this technology developed. The availability of the VCR again changed the nature of correspondence courses with videotapes being sent to students.

1960 - 1980

Two major technological advances changed distance learning delivery options in the 1960s. First, the advent of video technologies brought about television and satellite-based distance learning courses. These early video technologies only provided for one-way audio/video communication from the instructor to the students.

Second, the increased availability of telephone access allowed for "real-time" interaction between instructors and students using audio conferencing. According to Cyrs (1997), audio conferencing "provides direct teaching and interaction among students and teachers across many field sites" (p. 4).

The late 1970s saw the first significant integration of these two technologies. This allowed for one-way transmission of video from the instructor to students with two-way transmission of audio among students and instructors.

1980 - 1990

The 1980s were characterized by the first use of personal computers in distance learning. This included the development of the first interactive computer-based materials (i.e., computer-assisted instruction) and the first incorporation of computer-based multimedia (i.e., text, graphics, audio, video, and animations) into instruction. Also, during this time period, technological advancements provided the first opportunities for the delivery of two-way audio/video.

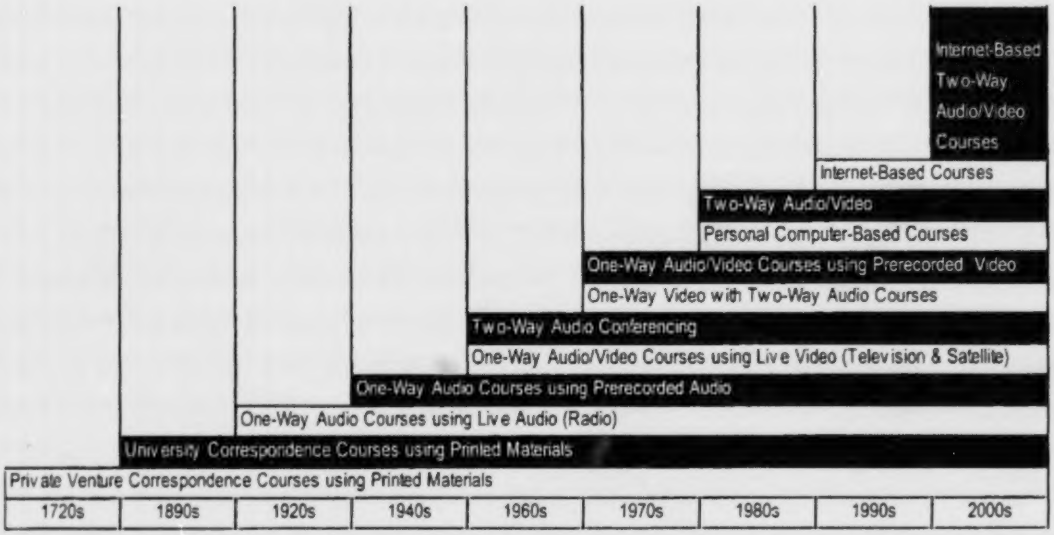
1990 - 2000

The technological advances regarding access to the Internet and the development of the Web have significantly changed the nature of distance education. Early uses of the Internet focused on student-instructor interactions through text-based e-mail and bulletin boards. Thus, the development of the WWW has allowed instructors to create interactive multimedia learning resources for students.

Additionally, advances in Internet connection speeds now permit "real-time" computer-based interaction between students and the instructor. Currently, most of these interactions are text-based. As connection speeds continue to increase, the majority of these interactions will be able to include the "real-time" sharing of audio, video, and still graphics.

Technological advances have significantly changed the delivery options available for distance learning. However, since the beginning of the first correspondence courses to today's interactive multimedia instructional web sites, the question remains, how effective is distance learning as an instructional tool?

Timeline of Distance Learning Innovations



Distance Learning: Does it Work?

Critics of distance learning contend that students at a distance do not receive an equal education compared to the students on campus. Nevertheless, numerous research studies do not support this contention. In fact, some distance learning researchers (e.g., Cyrs, 1997; Russell, 1999) discuss the "no significant difference phenomenon." According to Hanson, Maushak, Schlosser, Anderson, Sorenson, and Simonson (1997), "Distance education is just as effective as traditional education in regards to learner outcomes" (p. 31). Additionally, when discussing the effectiveness of instructional television, Lennon and Payne (1997) stated "The weight of evidence clearly suggests that there is no longer any doubt that learners can and do learn from televised instruction at least as well as they do in traditional face-to-face instruction" (p. 181).

No Significant Difference

One of the most cited authors in distance learning literature discussions of the "no significant difference phenomenon" is Thomas Russell. He recently published a book entitled *The No Significant Difference Phenomenon*. This publication is an annotated bibliography on technology for distance education containing information about 355 research reports, summaries, and papers. For example, Russell documented that one of the first studies of distance education was conducted in 1928 and compared the effectiveness of correspondence courses with face-to-face courses. According to Crump (1928), "Class-extension and correspondence work is on a par with residence work in so far as factual knowledge is concerned" (p. 66).

Moreover, Thomas Russell maintains a "No Significant Difference Phenomenon" Web site that includes a listing of these studies as well as other studies that were not included in his publication. On this web site, he noted a recent publication by Smeaton and Keogh (1999). They reported, "The results in this paper have shown that when virtual lectures are used in place of traditional delivery methods there is no significant difference in attainment levels as measured by end of year examination marks" (Smeaton & Keogh, p. 92).

In addition to the studies annotated by Thomas Russell, other researchers have documented similar results. Lennon and Payne (1997) discussed a comparison of student performance in interactive television courses and face-to-face courses. They concluded that "No significant differences were found between the groups on any measure. Neither student reaction nor student performance was significantly affected by the form of the presentation" (p. 184). In a similar study comparing compressed video and face-to-face instruction, Wright (1998) noted no differences in test scores between the two groups and concluded "compressed video has been shown to be as good as traditional classroom instruction" (p. 194).

However, one important caveat must be made when reviewing this literature. These studies most likely evaluated distance learning courses that were well planned and delivered with instructors who were competent in the appropriate use of the various distance learning delivery systems and learning technologies. One of the goals of this book is to provide readers with the skills to help them become competent in the use of various distance learning delivery systems and learning technologies.

Significant Difference

Some research studies (Cotton, 1991-1992; Delafuente, Araujo, & Legg, 1998; Fischer, 1983; Krein & Maholm, 1990) have suggested that students in technology-rich environments may learn as much as students in traditional classrooms. Furthermore, these students may require less time than students in a traditional classroom to learn the same amount of material. Specifically, Geisert and Futtrell (2000) stated "Computer-based instruction has yielded substantial savings in instructional time" (p. 201). This is noteworthy for distance learning because most distance learning programs are delivered in technology-rich environments.

Distance Learning Effectiveness Concerns

As can be expected, distance learning is not without its critics. For example, the Institute for Higher Education Policy (1999) published a report reviewing research concerning the effectiveness of distance learning. Rather than determining whether or not the research supported the effectiveness of distance learning, they concluded "the overall quality of the original research is questionable and thereby renders many of the findings inconclusive" (p. 3).

Despite the critics and their ongoing concern with effectiveness, every indication is that distance learning will continue to grow. The following section reviews some of the trends in distance learning.

Trends in Distance Learning

It is difficult to look into a crystal ball and predict the future. However, the ability to understand trends may help counselor educators to stay on the front end rather than the back end of the distance learning curve. Trends will be investigated in two areas (a) growth of distance learning and (b) technological innovations.

Growth of Distance Learning

According to the Council for Higher Education Accreditation (1999):

> The International Data Corporation (IDC) released a report in January 1999 titled *Online Distance Learning in Higher Education, 1998-2002.* The report estimates that 2.2 million college students will be enrolled in distance education by 2002, up from approximately 710,000 in 1998. The number of distance learning programs is expected to grow to meet the demand. IDC's research estimates that . . . . four-year colleges and universities that offer distance education courses will jump to 84 percent in 2002, an increase from 62 percent in 1998.

The National Center for Educational Statistics (NCES) conducted national surveys concerning distance learning during the Fall 1995 semester (U.S. Department of Education, 1997) and the 1997-1998 academic year (U.S. Department of Education, 1999a). The results from these surveys provide some indicators of anticipated growth in distance learning.

Public Four-Year Institutions: According to the U.S. Department of Education (1997), during the Fall 1995 semester, 62% of public four-year institutions offered distance education courses. Moreover, 23% of the public four-year institutions that were not offering distance education at that time indicated that they planned to offer distance education courses in the next 3 years. Therefore, according to this data, 85% of public four-year institutions should have been offering distance education courses during the Fall of 1998.

The follow-up NCES study (U.S. Department of Education, 1999a) indicated that during the 1997-1998 academic year, 79% of the public four-year institutions were offering distance education courses. Also, 12% of the public four-year institutions that were not offering distance education at that time pointed out that they planned to offer distance education courses in the next 3 years. Thus, according to this data, 91% of public four-year institutions will be offering distance education courses during the 2000-2001 academic year and beyond.

As previously indicated, by the Fall 1998 semester 85% of public four-year institutions should have been offering distance education courses. In the previous academic year 79% actually had achieved this goal (U.S. Department of Education, 1999a). Therefore, these projections seemed to accurately reflect what actually happened in public four-year institutions. If the projections from the second survey are accurate, over 90% of public four-year institutions will be offering distance education courses during the 2000-2001 academic year and beyond.

Private Four-Year Institutions: The same type of data was collected by the NCES (U.S. Department of Education, 1997) concerning private four-year institutions. During the Fall 1995 semester, 12% of private four-year institutions offered distance education courses. Additionally, 27% of the private four-year institutions that were not offering distance education at that time indicated that they planned to offer distance education courses in the next 3 years. According to this data, 39% of private four-year institutions should have been offering distance education courses during the Fall of 1998.

The follow-up NCES study (U.S. Department of Education, 1999a) indicated that during the 1997-1998 academic year, 22% of the private four-year institutions were offering distance education courses. Also, 25% of the private four-year institutions that were not offering distance education at that time indicated that they planned to offer distance education courses in the next 3 years. Thus, based on this data, 47% of private four-year institutions will offer distance education courses during the 2000-2001 academic year and beyond.

The U.S. Department of Education (1997) pointed out that by the Fall 1998 semester 39% of private four-year institutions should have been offering distance education courses. Yet in the academic year prior to this only 22% actually had achieved this goal. The projection seemed to over estimate what actually happened in private four-year institutions. If the second survey projections are similar, only approximately 27% of private four-year institutions will be offering distance education courses instead of the projected 47% in the 2000-2001 academic year and beyond.

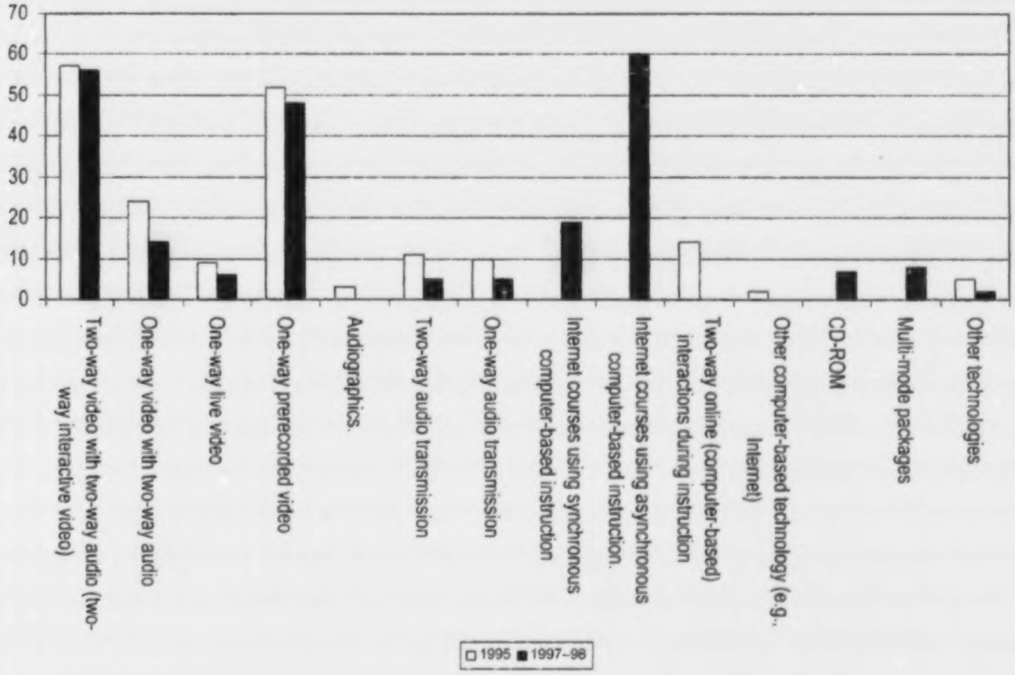
Technological Innovations

Technological advances will lead to changes in distance learning delivery systems. For example, in the 1970s, cassette tapes replaced reel-to-reel tapes for the delivery of audio. These same types of changes will continue to occur with the delivery of distance learning. To illustrate, DVDs will soon replace videocassettes as a method of delivering learning resources to support a distance learning course.

The U.S. Department of Education (1999a) compared the use of distance learning technologies that were being used by higher education institutions during the two NCES studies. The graph on the following page is compiled from this report (Table 25, p. 52).

During the Fall 1995 semester, the two most common forms of distance learning technologies were (a) two-way video with two-way audio and (b) one-way prerecorded video. However, during the 1997-1998 academic year, the two most common forms of distance learning

Percent of 2-year and 4-year higher education institutions offering distance education courses that used various types of technologies to deliver distance education courses in 1995 and 1997–98



1995 Based on the estimated 1,130 higher education institutions that offered distance education courses in fall 1995. The data for the 1995 study were not imputed for item nonresponse. However, there was no item nonresponse for these technology items.

1997-98 Based on the estimated 1,590 higher education institutions that offered any distance education courses in 1997–98.

NOTE: Percentages for each year sum to more than 100 because institutions could use more than one type of technology.

SOURCES: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, Survey on Distance Education Courses Offered by Higher Education Institutions, 1995, and Survey on Distance Education at Postsecondary Education Institutions, 1998–1999.

technologies were (a) two-way video with two-way audio (interactive television) and (b) Internet (online) delivery using asynchronous communication (U.S. Department of Education, 1999a). The two distance learning technologies that will be focused on in this book are: (a) interactive television courses and (b) online courses using synchronous and/or asynchronous communication.

During the Fall 1995 semester, few people would have imagined that Internet courses would be the most used form of distance learning only two years later (i.e., 1997-1998 academic year). Nevertheless, technological advances will further change the face of distance learning. The emergence of Internet2 will significantly impact distance learning delivery. For example:

- **Media Streaming**. Internet2 will allow distance learning instructors to use high-quality audio and video illustrations in their courses and let them post those materials onto the course website. Students will be able to view video illustrations even if they are using a 28.8k modem. (Council for Higher Education Accreditation, 1999)
- **Live Video Broadcasts**. Through Internet2, instructors will be able to capture live video and audio, convert it to a computer-compatible format, and "broadcast" it to multiple users who have standard Windows software with a Netscape browser plug-in. (Council for Higher Education Accreditation, 1999)

If these predictions concerning Internet2 are correct, in the next few years, higher education will see a convergence of computer and telecommunication technology. Specifically, interactive television courses and online courses will be combined to provide a new delivery methodology. This new methodology will encompass all of the advantages of both of these current delivery methodologies.

According to Boettcher and Conrad (1999), "The 1990s will be remembered as the decade of the Web. The next decade will be one of mobile, portable, wireless technology that supports teaching and learning anywhere, anytime" (p. 112). If Boettcher and Conrad are correct, then in the near future desktop computers and videoconferencing classrooms will be a thing of the past. However, Boettcher and Conrad are probably a little overly optimistic about the speed of change that will occur within higher education institutions. The scenario posited by the Council for Higher Education Accreditation (1999) probably provides a more realistic description of technological trends in distance education.

Finally, advances in computer and telecommunication technology have greatly impacted and will continue to impact distance education in two major areas: (a) speed of access and (b) level of interactivity. Technological innovations in these industries will reshape the field of distance education. Technological innovations will allow distance learning faculty to do more (i.e., increased speed of access and increased levels of interactivity) with less expensive hardware and software.

In terms of speed of access, instructional materials will be delivered faster to students. Increases in telecommunication bandwidth (e.g., cable modems, satellites) will not only allow for increases in access speed, but more importantly, the ability to deliver high quality audio and video to students through desktop computers at their homes. Today, it is technologically possible to deliver audio and video through the Web. However, due to antiquated telephone hardware in many areas of the United States (especially rural areas), receiving this type of audio and video is currently impractical.

In terms of interactivity, technological innovations will remove many of the barriers that had existed previously and thwarted efforts by faculty to interact with students at a distance. For example, teachers will be able to easily develop "real-time" dialogue with students at remote locations using a combination of audio, video, and text-based chat mediums.

Conclusion

This chapter provided a historical context for distance learning. This included a description of distance learning from the early days of print-based correspondence courses to the technological innovations that will be occurring over the next decade.

Additionally, this chapter reviewed the effectiveness of distance learning as a viable teaching methodology. In general, many studies report no significant difference in student learning when comparing traditional face-to-face delivery methodologies to courses delivered using distance learning technology. The key factors in the effectiveness of distance learning courses are not much different than the key factors in the effectiveness of face-to-face courses: (a) adequate course planning (design), (b) effective implementation (delivery) of the plan, and (c) appropriate revisions (evaluation) to the plan as needed.

Nonetheless, the major difference for many faculty members between face-to-face courses and distance learning courses concerns the lack of experience that faculty members have in designing distance learning courses and the lack of models to examine when designing courses. Many faculty members look to their colleagues and their own experiences as students when searching for models of "effective" teaching. However, within the context of distance learning, few of these models currently exist. Therefore, the following chapters will provide faculty members with ideas and guidelines for designing effective distance learning courses. For additional information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/02

Chapter Three

Distance Learning Technologies

Distance learning can be delivered using a number of technologies. Each of these approaches has some potential application to the delivery of counselor preparation at a distance. Then too, these technologies can be combined and/or used in conjunction with "face-to-face" delivery in a "hybrid" approach to deliver courses at a distance. This hybrid approach suggests that instruction would occur using two or more delivery systems. For example, a course could be delivered primarily "online" (i.e., via the Internet) with students traveling to campus one Saturday each month for face-to-face meetings. Another example could be a course delivered using interactive video with significant incorporation of asynchronous online instructional activities.

The purpose of the following discussion is to provide an overview of each of the distance learning technologies that might be available on a campus. In general, these distance learning technologies focus on the delivery of synchronous and/or asynchronous instruction using one or more of the following media elements: (a) video, (b) audio, (c) text, (d) still graphics, and (e) motion graphics (i.e., animations). In this context, "video" could be either "real-time" video during an interactive television course or pre-recorded videotape that is incorporated into an online course.

Each of the distance learning technologies tends to provide either advantages or disadvantages in the areas of (a) capital outlay costs, (b) ongoing costs, (c) faculty training, etc. Therefore, these factors often contribute to the decision by campus administrators as to whether or not each of these technologies is available on a particular campus. For a detailed discussion of selecting particular distance learning technologies based on course content, see Chapter 7 "Selecting Delivery Methodologies."

A review of the literature concerning distance learning can become confusing. Authors use different terminology to describe the same distance learning technology. For example, a course delivered using two-way audio and two-way video may be described as (a) "interactive television," (b) "videoconferencing," or (c) a "telecourse." The taxonomy for the following discussion is similar to the descriptions of distance learning technologies used by the NCES in compiling data for the report *Distance Education at Postsecondary Education Institutions: 1997-98* (U.S. Department of Education, 1999a).

One-Way Audio

As discussed in Chapter 2, one-way audio transmission is one of the oldest distance learning technologies. According to the U.S. Department of Education (1999a), one-way audio transmission included radio broadcast and pre-recorded audiotapes provided to students. They noted that in 1997-1998, only 5% of higher education institutions were offering distance education courses using one-way audio transmission compared to 10% in 1995. Thus, based on this report it appears that one-way audio transmission is diminishing in popularity as a distance learning technology.

Typical Uses

One-way audio has limited application to the counselor preparation process. However, the audiotape version of this technology is a popular medium for providing students with preparation materials for the NCC and/or LPC examinations. Completing these study materials at home instead of traveling to a weekend workshop could be considered a form of distance learning. Additionally, according to Carr (2000), "While many colleges are turning to the Internet with gusto in pursuit of distance-education opportunities, the Radcliffe Institute for Advanced Study at Harvard University is using radio to reach broader audiences" (p. A48). Specifically, "The Public Radio Satellite System is distributing six lectures in a special Radcliffe-sponsored series, 'Feminisms and the Practice of Democracy'" (p. A48). Although this radio series does not focus on counseling, this type of approach could be used by counselor educators in conjunction with other distance learning technologies (i.e., the hybrid approach).

Advantages

The cost of producing and distributing audiotapes makes this medium one of the least expensive approaches to providing distance learning courses. Likewise, if a campus has an existing radio station, producing radio broadcasts is a relatively inexpensive process. This technology is easy to use for both the instructor and the student.

Disadvantages

The major disadvantages are twofold. First, for some students, an audio-only course would be a difficult medium with which to promote student learning. Second, this technology provides no opportunity for interaction between the student and the instructor or interaction with other students.

Future Uses

Like many other distance learning technologies, the next generation of one-way audio is being delivered through the Internet using "audio streaming." According to Shelly, Cashman, and Vermaat (1999), "Streaming is the process of transferring data in a continuous and even flow, which allows users to access and use a file before it has been transmitted completely. Streaming is important because most users do not have fast enough Internet connections to download a large multimedia file quickly" (p. 7.16). Audio streaming allows a user to listen to either live or pre-recorded broadcasts through the Internet using a personal computer.

Two-Way Audio

The U.S. Department of Education (1999a) reported that two-way audio transmission encompassed the use of audio/phone conferencing. They noted that in 1997-1998, only 5% of higher education institutions were offering distance education courses using two-way audio transmission compared to 11% in 1995. Based on this report it seems that two-way audio transmission is being less utilized as a distance learning technology.

Two-way audio is a synchronous distance learning technology. The early two-way audio systems were referred to as audio conferencing and utilized the telephone as the delivery medium. According to Wisher and Priest (1998), this technology is "simply a high-quality conference call that allows people at multiple locations, interconnected through a special switchboard called a bridge, to hear and speak to one another over ordinary telephone lines" (p. 40). For example, the University of Wisconsin- Extension (2000) provides an audio conferencing service called "WisLine." This service can create a simultaneous connection of

144 telephone lines. Thus, students, faculty, and guest speakers may participate in audio conferences from virtually any place in the world that has a telephone.

Today, audio conferencing is beginning to occur on a more frequent basis using the Internet for "real-time" audio delivery. Using this technology, students must have computers equipped with a microphone and either speakers or a headset. The student participates in the audio conference in much the same way that he or she would participate using a telephone.

Typical Uses

Audio conferencing has a number of applications to higher education. This distance learning technology tends to work best with small groups (i.e., 5 –10 people) and with topics that lend themselves to high amounts of verbal interaction. Audio conferencing can be used as the sole distance learning technology or combined with other distance learning technologies (i.e., the hybrid approach). Course content that requires extensive visual support would need to have materials sent to students prior to the beginning of the class or posted on the WWW before class.

For counselor education, audio conferencing may fit well with two types of courses: (a) group practicum supervision and (b) advanced seminar courses. In a group supervision course, this technology allows students that may be in settings distant from campus to participate from their practicum sites without traveling back to campus on a regular basis. Also, this technology allows on-site practicum supervisors to join the group meetings as requested.

In advanced seminar courses, audio conferencing encourages high levels of interactivity. By the time students reach these advanced courses, they will have gained significant experiences and can draw on these experiences during discussions. Additionally, this technology provides an opportunity to incorporate guest speakers without requiring them to be on the campus.

Advantages

Audio conferencing provides several advantages as a distance learning technology. First, this is a relatively low-cost medium. The major cost for institutions is the purchase of the audio bridge. The university may provide "1-800" access for students to call into the bridge. Second, this is an easily accessible medium for students. The telephone is found in most homes and offices. Third, the technology (i.e., the telephone) is easy to use for both students and the instructor. Fourth, if the instructor is comfortable with a facilitative teaching style, faculty training is minimal. Fifth, the level of technical support necessary for audio conferencing is minimal. Sixth, when appropriately used, this is a highly interactive synchronous medium that provides the opportunity for immediate feedback. Seventh, sessions can be taped for transcription and/or sharing with absent students. Finally, audio conferencing can be incorporated with other distance learning technologies to provide a hybrid delivery system.

Disadvantages

As a delivery medium, audio conferencing possesses certain limitations. First, audio conferencing is limited to an auditory medium unless supplemented by printed materials, WWW sites, videotapes, etc. Second, it is a synchronous medium, requiring students to be at a telephone during a specific time period. Third, course audio conferencing times must be scheduled in advance. Fourth, instructors are not able to observe students demonstrating certain counseling techniques. Finally, the technology has been used for numerous years and may be perceived as "low tech."

Future Uses

As audio conferencing moves from being a telephone-based medium to an Internet-based medium it will once again become a popular format for distance learning delivery. However, high quality Internet audio conferencing will not become commonplace until Internet bandwidth issues are addressed in all potential service areas. For example, if all audio conferencing participants are using computers connected to high-speed Internet connections (e.g., most campus offices and laboratories), the audio will be of high quality. In cases where some students are connected to the conference using a low-speed modem from their homes, the audio quality will be inconsistent and jumpy.

One-Way Audio / Video

In a study of distance education, the U.S. Department of Education (1999a) considered one-way audio/video to encompass both one-way live video and one-way pre-recorded video (including pre-recorded videotapes, television broadcast and cable transmission using pre-recorded video). They noted that in 1997-1998, only 6% of higher education institutions were offering distance education courses using one-way live video compared to 9% in 1995. They also reported that in 1997-1998, only 48% of higher education institutions were offering distance education courses using one-way pre-recorded video compared to 52% in 1995. At first glance, it may appear that 48% is a relatively high percentage of courses using pre-recorded video. Many of the institutions that utilize this medium were public two-year institutions (i.e., 62% of public two-year institutions reported offering courses using pre-recorded video during 1997-1998). We see then that the number of senior-level institutions using this medium is lower. Based on this report we can infer that one-way audio/video transmission is diminishing in popularity as a distance learning technology in senior-level institutions.

Early uses of one-way audio/video (i.e., teacher-to-students) centered on providing live broadcast using cable television systems (i.e., local, regional, or national). These live video efforts were replaced and/or duplicated by videocassette tapes because students did not have to be at their televisions at a specific time to view the broadcast.

The emergence of the Internet has added to the potential for new applications of this distance learning technology in two ways. First, one-way audio/video is being delivered through the Internet using streaming technology. Thus, students can watch and listen to the instructor from any computer that contains an Internet connection. Consequently, delivery is no longer limited to areas served by the local cable company.

Second, for those institutions still using cable television delivery, faculty can incorporate web-based interactive quizzes and activities during the broadcast of the "lecture." This allows the students to become actively involved in the learning process and allows the instructor to check the students' understanding of concepts.

Typical Uses

This technology is often used with course content that is also delivered face-to-face in large lecture halls (e.g., undergraduate psychology courses). These courses tend to lack high levels of interactivity and opportunities for immediate feedback. Cable television delivery of one-way audio/video generally has limited application to counselor preparation. Nonetheless, some counselor education programs are currently using pre-recorded videotapes as a medium for providing students with both lecture material and skill demonstrations. Then too, counselor preparation faculty may utilize pre-recorded videotapes in conjunction with other types of distance learning instruction (i.e., the hybrid approach).

Further, Internet-based streaming of audio/video will provide an excellent enhancement to traditional text-based Internet delivered courses. This medium will provide students with the opportunity to observe skill demonstrations on the computer monitor while in their homes or offices. For example, the instructor can demonstrate specific counseling techniques using this technology.

Advantages

This technology provides the institution the ability to deliver courses to a large number of students at one time. If enrollments are large, this is a cost-effective medium because many institutions are provided "free" or "reduced cost" access to local cable television systems. Also, once produced, pre-recorded videotapes can be mailed to students at remote locations for a relatively low cost.

Second, this technology allows the instructor to incorporate audio as well as text, still graphics, and animations into a presentation. Third, this technology is easy for students to use (i.e., they only need to be able to operate a television and a VCR). Finally, one-way audio/video can be incorporated with other distance learning technologies to provide a hybrid delivery system.

Disadvantages

The biggest limitation to one-way live video is the lack of interactivity between the instructor and the students. Additionally in most situations, access to these broadcasts is limited to only individuals who subscribe to the cable systems that carry the course. Then too, the costs (e.g., set, lights, camera crew, director) for a "high quality" live production can be expensive. Pre-recorded videotapes carry many of the same limitations as live video broadcasts. Also, videotapes do not provide for interactivity while the costs of producing high quality videotape can be cost prohibitive.

Future Uses

Live one-way video will continue to be used to deliver lecture-style undergraduate courses. For counselor education programs this technology will be used in two ways. First, pre-recorded videotapes will continue to be produced in the near term. In foreseeing the long term, these pre-recorded tapes will be replaced by streaming technology as a supplement to text-based Internet-delivered courses.

Two-Way Audio / One-Way Video

This technology incorporates elements of the two previously described technologies (i.e., two-way audio and one-way audio/video). Typically, this technology will include the transmission of a live video signal from the institution to either the student's home (e.g., cable television) or to remote classrooms. In the remote classroom variation of this technology, students would gather at a classroom containing video monitors to view the instructor. However, unlike the two-way audio/video technology that will be discussed later, the two-way audio/one-way video approach does not allow the instructor to see the students in the remote classroom.

Students at remote locations are able to interact with the instructor through the use of a telephone-based audio bridge. This allows students to comment and ask questions of the instructor. This is the same technology used in satellite-based conferences.

According to the U.S. Department of Education (1999a), in 1997-1998 two-way audio/one-way video was used by only 14% of higher education institutions that were offering distance education courses compared to 24% in 1995. Therefore, based on this report it appears that two-way audio/one-way video is being used less as a distance learning technology.

Typical Uses

This technology used with cable television is primarily helpful with large undergraduate courses. In this situation, students would be able to "call in" on the telephone during a broadcast to ask questions. Typically, in order to reduce interruptions to the instructor's lecture, these calls are handled by teaching assistants.

The remote classroom variation of this technology has many practical applications for counselor preparation programs. With the exception of situations where students at the remote classroom need to be able to demonstrate skills or techniques and receive "real-time" feedback from the instructor, this delivery technology has application to almost any counseling course.

Advantages

This technology allows for "real-time" interaction between the students and the instructor. Similar to the one-way audio/video technology, this technology provides the institution with the ability to deliver courses to a large number of students at one time.

This technology allows the instructor to incorporate audio as well as text, still graphics, and motion graphics into a presentation. The instructor can also demonstrate specific counseling techniques using this technology.

In the remote classroom variation of this technology, the instructor can incorporate activities that encourage interactions between students. Furthermore, if content knowledgeable "site facilitators" are provided in remote classrooms, the instructor can have the facilitators lead small group activities.

Disadvantages

The major limitation of this technology is the inability of the instructor to see the students. Many faculty members feel that it is difficult to connect with students that can only be heard. Another limitation of this medium concerns technical difficulties. There are more opportunities for disruption as more technologies are integrated together for distance learning delivery. This means that faculty members need to develop contingency plans in the event of technical difficulties. Moreover, the level of technical support needed for this type of technology is greater than the previously discussed approaches. Finally, like other synchronous distance learning approaches, this technology requires students to be somewhere (i.e., home or remote classroom) at a specific time.

Future Uses

The cable television variation of this technology provides many advantages over one-way audio/video technology with only limited additional costs (e.g., audio bridge, teaching assistants). Predictably, this technology will continue to be used for large undergraduate courses.

The remote classroom variation of this technology, although very effective, will continue to be replaced by two-way audio/video capabilities. In many situations the two-way video is not an instructional necessity, but the incorporation of the two-way video makes the course feel more like a face-to-face classroom.

Two-Way Audio / Video

This technology has similarities to the remote classroom variation of the two-way audio/one-way video technology. This technology merges classrooms at the remote and local sites. Typically, the local site will be the classroom where the instructor is located. This local classroom may or may not also have students present. In many situations, the remote classroom will have only students and possibly a site facilitator present. Many of these classrooms are designed for use as both a local or remote site. Each classroom will contain television monitors for viewing the local and remote sites (usually only one remote site at a time) as well as all of the other equipment necessary to send and receive both audio and video. Generally the classrooms are connected to each other through some type of videoconferencing network using dial-up telephone lines, leased (i.e., dedicated) lines, or fiber optic cables. When telephone or leased lines are used, the audio and video signals are compressed in order to be able to send signals through the lines. When the signals are received at other locations they are decompressed. Unfortunately, the quality of the video and audio is diminished through the compression/decompression process. Fiber optic connections do not require compression and decompression. Fiber optic connections also provide higher quality audio and video.

According to the U.S. Department of Education (1999a), in 1997-1998 two-way audio/video was used by 56% of higher education institutions to deliver distance education courses compared to 57% in 1995. From findings in this report it seems that two-way audio/video is remaining a popular distance learning technology.

Typical Uses

This technology is used in teaching numerous types of classes. Videoconferencing provides the opportunity for the instructor to lecture, conduct demonstrations, and facilitate

discussions with students at both the local and remote sites. Specifically, this technology allows students at remote sites to role-play while demonstrating different counseling techniques and receive "real-time" feedback from the instructor at the local site. For a more complete description of using two-way audio/video in the preparation of counselors, see Chapter 8 "Interactive Television Courses."

Advantages

For many faculty members, this technology most closely approximates the traditional face-to-face classroom. When compared to other distance learning technologies, instructors often have an easier time incorporating this technology into their teaching styles. Many of the same strategies used in traditional face-to-face courses can be incorporated into an interactive television course.

This synchronous delivery technology allows both students and the instructor to incorporate audio, video, text, still graphics, and motion graphics into the course. Therefore, both instructors and students can present information to others using a variety of media. For example, this technology allows the use of videotapes, presentation graphics (i.e., electronic overhead transparencies), as well as live demonstrations. In general, if properly equipped, each videoconferencing classroom provides a high quality facility for teaching and learning.

This technology requires students to meet at specific times in selected classroom locations. Thus, this technology lends itself to small group discussions. Where feasible, instructors can travel to remote sites and teach back to the local site. This allows the instructor to have personal contact with students at the remote sites.

Disadvantages

The greatest limitation of this technology is the cost of establishing high quality videoconferencing classrooms and a corresponding network to connect the multiple classrooms. As indicated earlier, when more technology is involved in the distance learning delivery, there is a greater potential for technological problems. When compared to other distance learning technologies, this approach brings together the largest variety of technologies and provides the greatest potential for hardware and software-related difficulties.

This medium requires extensive coordination of classroom and network scheduling. In order to create an interactive television session, special classrooms that are designed specifically for videoconferencing must be scheduled at both the local and remote sites. If the sites are located at different institutions, coordinating schedules can become troublesome (e.g., different class start times, different Spring Breaks, different final exam week schedules).

Further, the videoconferencing network (or networks) needs to be scheduled. This network is a special set of data circuits that connect interactive television classrooms. In many ways, a videoconferencing network central office would work like a "1950s" telephone switchboard. However, today, these connections of classrooms are made using computer software instead of plugging wires into a switchboard.

Many institutions provide support personnel to make these arrangements. The faculty member's responsibility may involve making a telephone call to the campus videoconferencing scheduler or completing some type of videoconferencing reservation form. At some institutions, making all of these arrangements becomes the responsibility of the instructor.

As mentioned earlier, the synchronous nature of this technology provides many benefits to the teaching and learning process. Nevertheless, this technology also requires students to travel to either a local or remote classroom (a potential obstacle for "place-bound" students) at specific times (a potential obstacle for "time-bound" students).

Future Uses

Videoconferencing in its present format will continue to remain a viable option for delivering a variety of counselor preparation courses. The quality of the audio and video will continue to improve as better compression technologies are developed. Audio and video quality will also improve as fiber optic costs are reduced and telephone-based connections are replaced with fiber optic connections.

In addition to classroom-based videoconferencing, the next generation of two-way audio/video will move from the classroom to the student's home through the personal computer. This new technology is described as desktop videoconferencing. Desktop videoconferencing utilizes PC-based microphones and cameras to transmit audio and video. Instructors and students use the Internet to transmit audio, video, text, still graphics, and motion graphics. Presently, due to current bandwidth limitations of the Internet, in most situations desktop conferencing is not yet a feasible alternative for conducting courses involving multiple computer connections.

Computer-Based CD-ROM Delivery

The advent of the personal computer changed the way that institutions could deliver asynchronous distance learning programs. Prior to the PC, these programs were delivered through print, audiotapes, and videotapes. Today, text, graphics (i.e., still and motion), audio, and video can be combined and delivered to students using CD-ROM technology. This technology not only provides students with access to these media elements, but also integrates interactive activities into these multimedia-based CD-ROM applications.

According to the U.S. Department of Education (1999a), in 1997-1998 CD-ROM technology was used by 7% of higher education institutions to provide distance education courses. From this report we can infer at this time that CD-ROM technology is not a highly prevalent medium for the delivery of distance learning.

Typical Uses

This technology is used in providing textual, graphical, and auditory content as well as video demonstrations. Used primarily in an asynchronous delivery system, students can work individually or in small groups completing structured tutorials on CD-ROM. For example, students could review short demonstrations of counseling techniques on the computer screen or complete a series of review questions that incorporate multiple media elements.

In most situations, CD-ROM technology is not used as a stand-alone system for the delivery of a distance learning course. Rather, CD-ROMs are most often incorporated into both face-to-face and distance learning courses delivered using other technologies (i.e., the hybrid approach).

Advantages

CD-ROM technology provides one of the best methods to deliver content and simulations using multiple forms of media. This delivery system has the potential to require active involvement of the learner. This technology allows the student to complete a series of highly structured activities that require the learner to make "choices" while completing simulations. A well-planned simulation/tutorial delivered on CD-ROM provides numerous options for students to complete a pre-determined set of activities, but does not require the student to complete all of the modules in order to complete the activities. CD-ROM is currently the best medium for delivering high quality video to the student's home computer.

Disadvantages

The biggest disadvantage of CD-ROM delivery concerns the difficulty in revising content. Like a textbook, once a CD-ROM is produced and duplicated the only way to revise the content is to publish new editions of the CD-ROM. Thus, the need to "get it right" the first time is paramount and leads to high initial development costs. When incorporating significant amounts of digital video, a second disadvantage concerns the relative limited size of the CD-ROM medium (i.e., 650 MB). According to the Williams, Lock, and Burnett (1996), a 30 second uncompressed quarter-screen video-clip will use approximately 70MB of storage space on the CD-ROM. Thus, using this uncompressed format, a CD-ROM would be able to hold less than five minutes of this type of video. The use of video compression allows video file sizes to be reduced. Consequently, more digital video can be incorporated into a CD-ROM. Even using compression, the amount of video that can be incorporated in a CD-ROM will be usually less than 30 minutes.

In addition, like the other asynchronous distance learning technologies previously discussed (i.e., one-way audio, one-way audio/video), a major limitation to CD-ROM technology is the lack of interactivity between the instructor and the students.

Future Uses

In order to handle the need to revise materials, many CD-ROM delivery systems are being used in conjunction with Internet-based delivery. In this situation, the CD-ROM contains links to Internet-based resources (e.g., text, graphics, and audio) that can be easily updated. The only elements on the CD-ROM that cannot be revised would be the video clips and the interactive modules.

Over the next few years, the CD-ROM will be replaced by the DVD-ROM. The new DVD-ROM technology does not carry the size limitations that are present in CD-ROM technology. For example, according to Shelly et al. (1999), a single DVD-ROM will hold up to 17 GB of data. This equates to approximately the same amount of data as 26 CD-ROMs. In time, materials that are currently being delivered using CD-ROM technology will be delivered using DVD-ROM technology and the Internet.

Computer-Based WWW Delivery

The newest and fastest growing distance learning technology is delivered using the Internet. This technology can include both

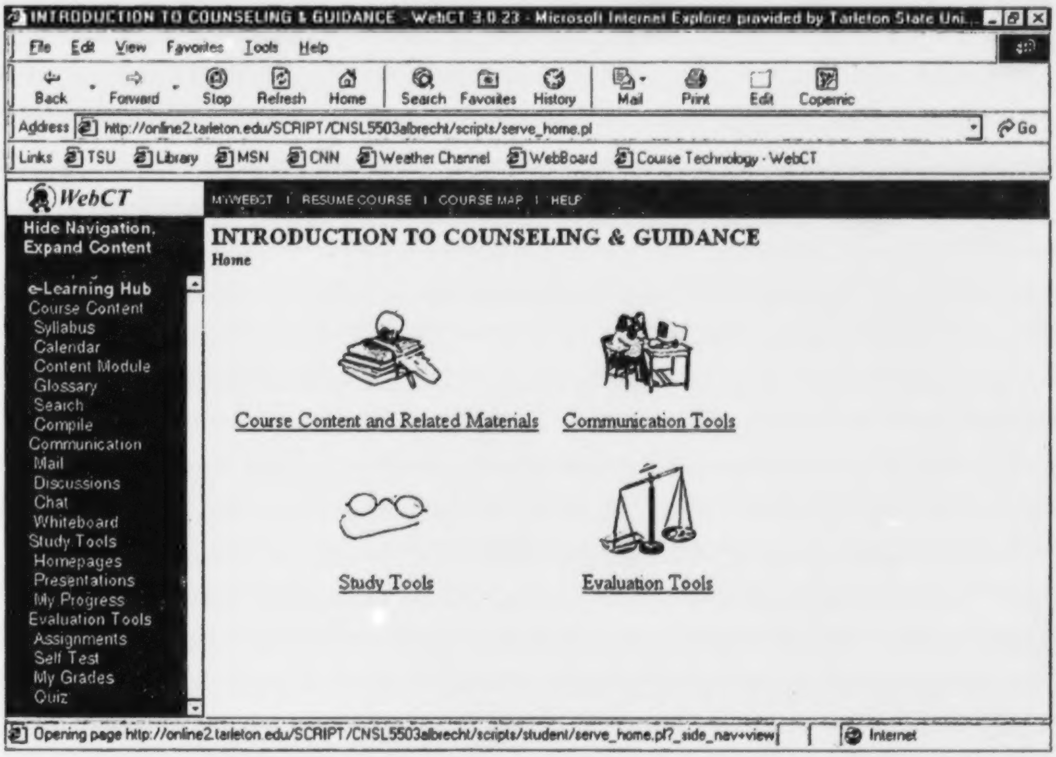
synchronous and asynchronous forms of interactivity as well as content delivery. Web-based or online course content primarily incorporates the use of text and graphics (still and motion) presented in the form of various web pages that are reviewed by students. Some online courses incorporate the use of audio and video supplements. Further, student-to-instructor and student-to-student interaction primarily occurs using a combination of synchronous text-based "chat rooms" and/or asynchronous text-based "bulletin boards" as well as e-mail.

According to the U.S. Department of Education (1999a), in 1997-1998 Internet courses incorporating synchronous interaction were used by 19% of higher education institutions to provide distance education courses. Internet courses using asynchronous interaction were used by 60% of higher education institutions to provide distance education courses. Based on this report it seems at this time that Internet courses are one of the most common mediums for the delivery of distance learning.

For a more complete description of using online delivery in the preparation of counselors, see Chapter 9 "Online Courses."

Typical Uses

This technology fits well with courses that are primarily content or knowledge-based rather than skill-based. Many online courses are primarily asynchronous. This format allows students time to reflect on and apply concepts presented in the online lessons. Many of these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File Edit View Favorites Tools Help
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Course Content
Syllabus
Calendar
Content Module
Glossary
Search
Compile
Communication
Mail
Discussions
Chat
Whiteboard
Study Tools
Homepages
Presentations
My Progress
Evaluation Tools
Assignments
Self Test
My Grades
Quiz
INTRODUCTION TO COUNSELING & GUIDANCE
Home
Course Content and Related Materials
Communication Tools
Study Tools
Evaluation Tools
Opening page http://online2.tarleton.edu/SCRIPT/CNSL5503albrecht/scripts/student/serve_home.pl?_side_nav+view
Internet

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courses encourage students to do extensive writing pertaining to instructor-developed discussion questions by e-mailing responses to instructors or posting responses to a bulletin board. A search of the Web finds numerous examples of career counseling courses being delivered in an online format. For examples of online courses, see the companion web site.

Advantages

With reference to university infrastructures, online courses are relatively inexpensive to produce. Most universities already operate some type of Web server. When converting a course for web-based delivery, the content of a course can be developed from the instructor's existing lecture notes. The web-based format is easy to update and readily incorporates web-based resources from other universities, organizations, companies, etc.

This technology is one of the most flexible in terms of technical competence required by the instructor. Many institutions provide support staff to do most of the work in the actual course content conversion to a web-based format. This allows the faculty member to focus on the teaching and learning process. Since many students have become Internet-savvy, this technology is relatively easy for students to use.

Disadvantages

The disadvantages of online courses fall into two major areas: (a) technological concerns and (b) instructional design concerns. First, in many areas of the United States as well as in many other countries, Internet connections from student homes are both slow and unreliable. Therefore, when developing online course content and schedules, instructors must consider these issues. Slow Internet connections will limit the ability of some students to receive web-based audio/video and cause long delays in viewing web-based text and graphics. Then too, the unreliability of Internet connections may limit the ability of students to participate in scheduled "chat" sessions.

Second, it is unfortunately easy for an instructor to develop an online course that is not instructionally sound. Many first attempts at online courses by instructors could be characterized as "web-based correspondence courses." In these cases, the student reviews the web-based text and responds to the instructor's questions via e-mail. These courses tend to lack opportunities for students to interact with both the instructor and other students.

Future Uses

Whether the Web is used to complement other forms of distance learning (i.e., the hybrid approach) or used as the sole medium for a course, the Internet is the future of distance learning. As Internet technologies continue to develop, connection reliability and speed will increase. Instructors will then be able to merge audio and video into course content delivery to all students.

In the not so distant future, Internet-based courses will be able to blend the best of many of the other distance learning technologies (e.g., web-based audio conferencing, web-based videoconferencing, highly interactive multimedia-based simulations). Universities will be able to deliver these highly interactive and multimedia rich courses to the student's desktop computer at home or in the office.

Conclusion

This chapter provided an overview of the various technologies, which may be available on a particular campus. As discussed, each of the technologies has some potential application to counselor preparation. However, some of these technologies will become more common than others on colleges campuses. According to the U.S. Department of Education (1999a):

> Institutions planned to start using or increase their use of asynchronous Internet instruction as a primary mode of delivery more than any other type of technology, with 82 percent of the institutions planning to start or increase their use of this technology . . . . Two-way interactive video (cited by 61 percent) and synchronous Internet instruction (cited by 60 percent) were also frequently indicated as technologies planned for an increasing role in delivering distance education in the next 3 years. (p. 39)

These are the same technologies that will be covered in greater detail in Chapters 8 and 9.

The following table summarizes the advantages and disadvantages of the various technologies discussed in this chapter. For additional information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/03

Advantages and Disadvantages of Various Distance Learning Technologies

Technology	Advantages	Disadvantages
One-Way Audio	• Low production costs • Low distribution costs • Easy to use for instructor • Easy to use for student	• No visual component • No interactivity
Two-Way Audio	• Limited capital outlay • Accessible to students • Easy to use for instructor • Easy to use for student • Interactive • Easy to archive	• No visual component • Perceived as "low tech" • Faculty scheduling responsibilities • Synchronous delivery: Difficult for time-bound students
One-Way Audio/Video	• Instruct a large number of students • Low distribution costs • Incorporate multiple media • Incorporate demonstrations • Easy to use for students	• No interactivity • Student access to cable television • High production costs
Two-Way Audio / One-Way Video	• "Real-time" interactivity • Large number of students • Incorporate multiple media • Incorporate demonstrations • Incorporate course support personnel	• Inability to "see" students • Technology difficulties • Synchronous delivery: Difficult for time-bound students
Two-Way Audio/Video	• Most like "face-to-face" • "Real-time" interactivity • Incorporate multiple media • Incorporate demonstrations • Incorporate course support personnel	• Technology difficulties • High capital outlay • Faculty scheduling responsibilities • Synchronousy delivery: Difficult for time-bound students • Requires student travel: Difficult for place-bound students
Computer-Based CD-ROM	• Incorporate simulations • Incorporate multiple media • Active learner involvement • Easy to use • Non-linear lessons	• Difficult to revise • Limited storage capacity • Lack of interaction between student and instructor
Computer-Based WWW Delivery	• Low costs • Easy to revise • Easy to use for instructor • Easy to use for students • Course conversion support	• Technological problems • Instructional design problems • Slow Internet access speeds

Chapter Four

Introduction to Instructional Design

Students can and do learn in a distance learning environment. According to Dooley, Edmundson, and Hobaugh (1997), what makes "a difference is the detail given to instructional planning and design" (p. 52) whether it is in a face-to-face class or in a distance learning environment. Thus, the focus of this chapter is on assisting counselor educators in the process of designing courses for delivery using distance learning technologies.

Importance of Instructional Design

According to the Applied Research Laboratory at the Pennsylvania State University (n.d.):

> Instructional Design is the systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction. It is the entire process of analysis of learning needs and goals and the development of a delivery system to meet those needs. It includes development of instructional materials and activities; and tryout and evaluation of all instruction and learner activities.

Long before the term "distance learning" became popular, faculty members have been using elements of instructional design in their face-to-face courses. Smith and Ragan (1999) suggested that effective instructional design has a positive impact on student learning. In addition, Arends (1997) noted, "Learning nearly always is the result of considerable planning prior to actual instruction" (p. 23). The use of instructional design in "course development occurs at macro and micro levels" (House & Miller, 1998, p. 83).

Anytime a faculty member thinks about (a) the students to be taught, (b) the goals of the course, (c) the general format of the course, or (d) the types of student assessments to be used, the faculty member is implementing many of the essential elements of "macro-level" instructional design. Macro-level instructional design normally begins long before the course is taught when the faculty member selects textbooks and starts the overall planning process for the course.

Several authors (e.g., Dick & Carey, 1996; Smith & Ragan, 1999) have suggested models of macro-level instructional design. These models tend to suggest the following requisite elements:

1. Analysis of the Learning Environment
2. Establishment of Course Goals
3. Selection of Instructional Delivery System(s)
4. Methods of Student Assessment
5. Evaluation of the Learning Process

A detailed discussion of each of these elements follows in the section entitled "Macro-Level Instructional Design."

Then too, any time the faculty member prepares for each separate class meeting, the faculty member is implementing many of the essential elements of "micro-level" instructional design. Therefore, when a faculty member considers (a) the specific objectives to be achieved during a class meeting, (b) the specific techniques and resources to be used during that class meeting, and (c) the methods used for assessing student achievement of these objectives, the faculty member is implementing elements of micro-level instructional design.

Several authors (e.g., Arends, 1997; Gagne, Briggs, & Wager, 1992) have created models of micro-level instructional design. Each of these models tends to suggest the following essential elements:

1. Analysis of Learner Readiness
2. Identification of Instructional Objectives
3. Selection of Instructional Techniques and Resources
4. Assessment of Student Learning
5. Evaluation of the Learning Process

A detailed discussion of these elements follows in the section entitled "Micro-Level Instructional Design."

Role of Instructional Design in Distance Learning

As we know, effective instructional design is important in the process of developing and delivering instruction in a traditional face-to-face course. In a distance learning setting, instructional design is even more critical because instructors need to adapt courses to utilize the capabilities of the selected distance learning technologies. However, "As with any new delivery medium such as the World Wide Web, a tendency exists to focus on design strategies based only on the technological capabilities of the medium, rather than the goals of the lesson" (Bannan & Milheim, 1997, p. 382). Therefore, "Teaching in distance learning environments doesn't change the content, the goals or objectives of the class. There is no question, however, that distance education does change the manner in which the instructional messages are delivered" (Kolloff, Kolloff, & Thomas, 1999, p. 286). With this in mind, the remainder of this chapter will focus on applying both macro-level and micro-level instructional design models to counseling courses being taught using distance learning technologies.

Macro-Level Instructional Design

The first model of instructional design is considered a macro-level model. This model focuses on planning of the overall course.

Analysis of the Learning Environment

In face-to-face course planning, this would include considering both the students' prior knowledge and experiences with the course content as well as the students' personal characteristics (e.g., age, gender, maturity level). Smith and Ragan (1999) identified four general areas of learner characteristics that should be considered when planning a course.

1. **Cognitive Characteristics:** Including both general characteristics (e.g., language development level, general world knowledge) and specific prior knowledge.
2. **Physiological Characteristics:** Including age and other similar characteristics.

3. **Affective Characteristics:** Including motivation, attitude toward subject matter, etc.
4. **Social Characteristics:** Including relationships with peers, socioeconomic background, etc. (pp. 55-56)

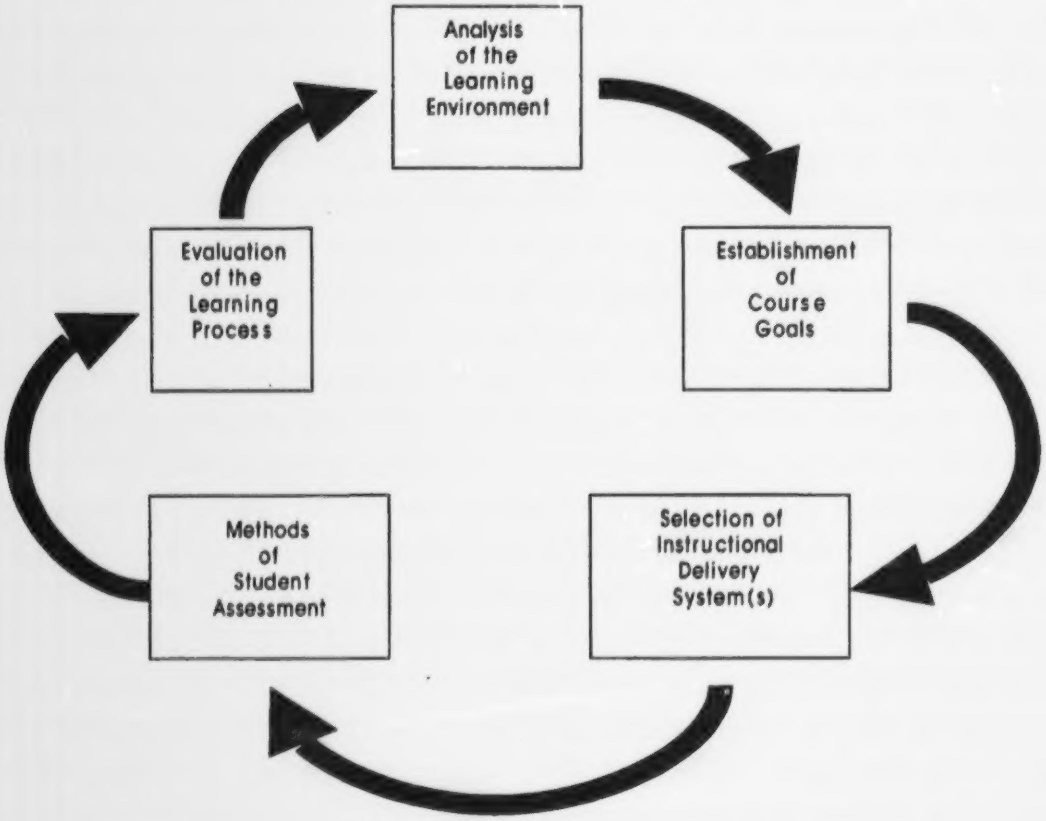
It is impossible to make these types of assessments prior to the first class meeting. What is possible in order to gain some insights into these types of characteristics is a look at (a) past personal experiences with the students, (b) prior experience with teaching the course, and (c) discussion with colleagues concerning these students.

Each student in the class will be an individual with unique characteristics and should be responded to within the context of that individualism. For general planning purposes, it is often helpful to identify a tentative profile for the course participants.

In addition to these factors, the instructor must also consider factors that are unique to the distance learning environment. Four major factors unique to teaching in a distance learning environment include:

1. **Anticipated Number of Students in Course:** The number of students in the course will often influence the nature of

Macro-Level Instructional Design Model


Analysis of the Learning Environment
Establishment of Course Goals
Selection of Instructional Delivery System(s)
Methods of Student Assessment
Evaluation of the Learning Process

the student-teacher interactions as well as the need for additional instructional support (e.g., facilitators, graders).

2. **Students' Experience and Comfort Level with the Technologies:** Students with limited experience in using technologies may require additional support from the instructor. Daniels, Tyler, and Christie (2000) suggested using the "Technical Competencies for Counselor Education Students: Recommended Guidelines for Program Development" (Association for Counselor Education and Supervision [ACES] Technology Interest Network, 1999) as a "benchmark" for assessing student technological readiness for a distance learning course.

3. **Students' Experience and Comfort Level with the Distance Learning Technologies:** Students with limited experience in using distance learning technologies may require additional support from the instructor. Conversely, a student with prior experience using the distance learning technologies may require less support from the instructor.

4. **Student Willingness to Work More Autonomously** (i.e., without regular face-to-face contact with the instructor): Some students perform best with regular contact with an instructor while other students perform just as well, or better, without this contact. For students who do not work as well in autonomous settings it is important to develop peer mentoring within the distance learning course.

Establishment of Course Goals

During the process of establishing course goals, in both face-to-face courses and distance learning courses the faculty member should ask the question, "What should the students achieve as the result of completing this course"? Depending on the course, these goals could fall in a number of different realms.

Within the context of student learning, course goals can be organized and classified in many ways. Gagne et al. (1992) posited that learning outcomes could be organized into five broad categories.

1. **Verbal Information:** Stating previously learned material. For example, a course goal could be, students can describe the steps in an ethical decision-making model.

2. **Intellectual Skills:** Applying and/or demonstrating something that the students have already learned. A sample course goal could be: counseling students compute non-parametric statistical techniques.

3. **Cognitive Strategies:** Displaying "capabilities that govern the individual's own learning, remembering, and thinking behavior" (Gagne et al., p. 44). A course goal might be: counseling students demonstrate how to select appropriate terms in order to search a database.

4. **Motor Skills:** Using physical abilities to perform a specific task. For example, a course goal could be: students demonstrate physical attending skills.

5. **Attitudes:** Displaying an affective stance toward a specific choice. A sample course goal would be: students explain their feelings about becoming a counselor.

For distance learning to become and remain a viable instructional tool, it is essential that instructors not change their instructional goals merely because the course is being delivered at a distance. Many instructors make the mistake of expecting less of students at a distance. This mistake provides ammunition to critics of distance learning. Clearly, it is paramount that instructional goals remain the same for face-to-face as well as distance learning courses.

Selection of Instructional Delivery System(s)

In both the face-to-face classroom and the distance learning environment, the decision concerning the selection of an instructional delivery system should be based on three factors: (a) students' background, (b) course goals, and (c) the instructor's preferred teaching methods.

1. **Students' Background:** Even though each student is unique, a general assessment of the anticipated student backgrounds can be made based on the faculty member's prior experiences in teaching the course and/or from talking with colleagues who have previously taught the course. This general assessment will help the faculty member identify the delivery system(s) that might best meet the needs of these students. To illustrate, a group of first semester Master's level students might perform better in a more structured environment. However, a group of doctoral students might perform better in a less structured environment.
2. **Course Goals:** Many courses will have course goals that will fall in more than one of the categories that has been described by Gagne et al. (1992). In fact, a course could involve goals from all five categories. A common situation is that most of the course goals will be in one category with one or two goals in other categories. At times those one or two are the most important course goals. In this case, the faculty member has to either select a delivery system based on what "best fits" (a) the greatest number of goals for the course or (b) the most important goals for the course.
3. **Instructor's Preferred Teaching Methods:** Each faculty member develops his or her own teaching style. Part of this style will include a preference for certain teaching methods (e.g., lecture, discussion groups). It is quite possible for a faculty member who prefers a small group seminar course format to teach a lecture-based course with several hundred students. However, the faculty member will probably be at his or her best using teaching methods that best fit his or her teaching style.

Many faculty members either consciously or unconsciously consider these three factors when selecting an instructional delivery system for a face-to-face course. In a distance learning course, it is highly important that these same three factors be considered when selecting a distance learning technology or set of distance learning technologies for delivering the course. For a further discussion of using these factors to select distance learning technologies see, Chapter 7 "Selecting Delivery Methodologies."

Methods of Student Assessment

In order to be valid, assessment methods and techniques need to be related directly to pre-established course goals. Without this direct relationship, the results of these assessments may not measure the student's achievement of the course goals. This situation is true in both face-to-face and distance learning courses.

Many instructors evaluate students using the same methods and techniques that their instructors used during their graduate programs. Many of these methods are very effective in accurately assessing a student's achievement of specific goals. Recently though, several alternative assessment strategies have been developed for use in face-to-face courses. These strategies can be adapted for use in distance learning settings also. For a further discussion of assessment strategies within the context of interactive television courses see Chapter 8, and for online courses see Chapter 9.

Evaluation of the Learning Process

At the end of a face-to-face course, many instructors often reflect on what went well in terms of content delivery, selected activities, and assessment methodologies as well as the feedback they receive from students. This reflective process is equally important in distance learning courses. Notably, in distance learning courses this evaluation of the learning process is especially important for three reasons.

First, as instructors begin delivering distance learning courses, they often experience difficulties with the technology. Some of these problems cannot be anticipated and are beyond their control (e.g., power failures). However, with experience some of these difficulties can be anticipated and instructors can build contingency plans into their courses. For example, if the Web server is down during a scheduled online "chat" time, the instructor has already scheduled a "back-up" chat time to handle such situations. Often faculty members will not understand the importance of developing contingency plans until they have personally experienced difficulties with the technology.

Second, some instructors do not understand how the distance learning technologies can be integrated into the teaching and learning process. Therefore, these instructors do not appropriately incorporate the technologies. In this situation, the technology becomes a hindrance to the teaching and learning process. To illustrate, in an interactive television course an instructor might attempt to use traditional plastic transparencies on a document camera and students will not be able to see them.

Third, instructors do not initially take full advantage of the technologies. They fail to fully integrate new technology tools into the teaching and learning process. In this example, an online instructor may realize that it is important for students to assess their own knowledge concerning a topic. To this end, the instructor develops a web page with a few sample multiple-choice questions and another web page with the answers. This process will work. But, a better way to use the web technology would be to make each multiple choice question interactive. This method would allow the instructor to provide the student pre-defined feedback for each response to a multiple-choice question.

Micro-Level Instructional Design

The second model of instructional design is considered a micro-level model. This model concerns planning of each individual class meeting.

Analysis of Learner Readiness

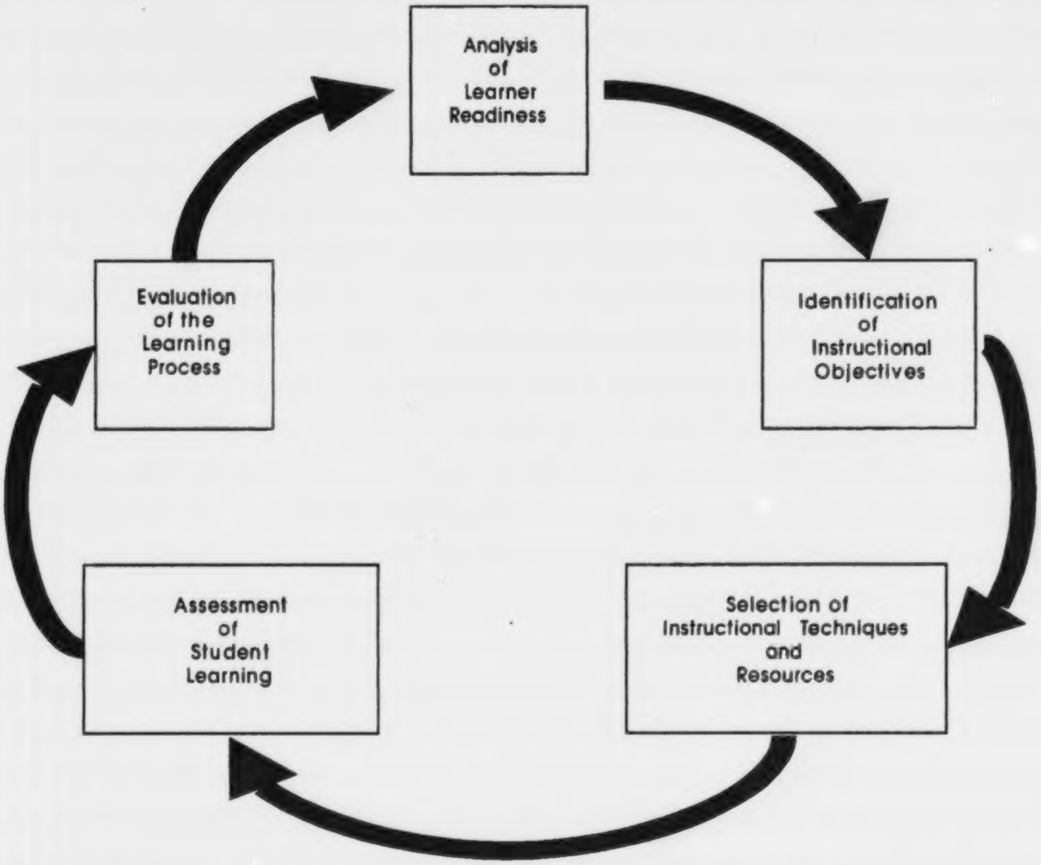
Each topic presented in a course will provide students with different levels of difficulty based on the students' prior experiences with a topic. One example might be a group of students with prior coursework in abnormal psychology who have little difficulty in understanding the basic underlying concepts for the fourth edition, text revision of the

Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000). However, for students without this background, understanding these concepts might be more of a challenge. Normally, the more prepared (i.e., ready) a student is to address a new topic, the easier the topic will be for the student to understand. Thus, as faculty members prepare for individual class meetings, they need to analyze how prepared the students are to deal with a topic. If students are less prepared to deal with a topic, instructors may need to plan to provide more:

- class time for the topic.
- structure to the instruction.
- print/computer-based resources.

Within the distance learning environment, it is essential to analyze how prepared the students are to deal with a topic. The reason for this is that most distance learning courses tend to require more advanced preparation by faculty members. To clarify, in a face-to-face course if faculty members have misjudged the students' readiness, it might be relatively easy for them to go back to their offices during a class break and bring additional learning resources (e.g., books,

Micro-Level Instructional Design Model


Analysis of Learner Readiness
Identification of Instructional Objectives
Selection of Instructional Techniques and Resources
Assessment of Student Learning
Evaluation of the Learning Process

journals) into the classroom. In the distance learning environment without prior planning, it could prove much more difficult for faculty members to provide these resources. The wise faculty member will think ahead and provide additional resources to students at locations removed from the instructor's location (e.g., homes, offices, remote classrooms).

Identification of Instructional Objectives

Course goals are broad statements of the overall anticipated achievement of students as the result of completing a course. Instructional objectives are the statements of what the students "should be able to do when they have completed a segment of instruction" (Smith & Ragan, 1999, p. 84). Both course goals and instructional objectives can be viewed within the context of student learning. Instructional objectives, like course goals, can be organized and classified in many ways. As previously discussed in the context of macro-level instructional design, Gagne et al. (1992) suggested that learning outcomes could be organized into five broad categories. This same organizational structure can be used in stating instructional objectives. The following illustration pertains to stating instructional objectives for the topic of "attending skills."

1. **Verbal Information:** An instructional objective could be: students can list five types of attending skills.
2. **Intellectual Skills:** An instructional objective might be: students can identify the demonstration of five attending skills in a videotape of a counseling session.
3. **Cognitive Strategies:** A sample instructional objective would be: students can develop and state a method for remembering five attending skills.
4. **Motor Skills:** An instructional objective might be: students will demonstrate the physical attending skill of leaning forward.
5. **Attitudes:** An instructional objective could be: students can explain their feelings about demonstrating the physical attending skill of leaning forward.

Just as with course goals, for distance learning to become and remain a viable instructional tool, it is highly essential that instructors not change their instructional objectives just because lessons are being delivered at a distance. As previously mentioned, instructors often make the mistake of lowering expectations of students at a distance.

Selection of Instructional Techniques and Resources

In a face-to-face course, the instructor makes these types of decisions in preparing for each lesson. The instructor decides based on the students' level of readiness, the instructional objectives, and the instructor's teaching preferences, whether to handle a topic using lecture, small group discussion, videotape, or some other combination of instructional techniques and resources.

The distance learning instructor makes these same decisions. However, the instructor also needs to consider the nature of the distance learning technology. To exemplify, if an instructor feels that a topic can best be handled using a combination of demonstration and discussion, he or she needs to determine how to incorporate this in the selected distance learning medium. In an online course, the instructor may have students view a videotape in the privacy of their own homes and then meet "online" in a chat room to discuss the tape. In an interactive television course, the instructor may have students view the videotape during class and have small group discussions at each of the remote locations. For more information on selecting instructional techniques and resources, see Chapters 8 and 9.

Assessment of Student Learning

Assessment of student learning at the micro-level concerns evaluating the degree to which the students achieve the specific instructional objectives. This assessment is not always determined by using formal tests or exams. Many times, prior to moving to the next topic or sub-topic, assessment of learning at this level takes the form of the instructor engaging in:

1. **Checking for Understanding:** The instructor makes sure the students understand what was presented. One way this can be accomplished is through asking the students questions (Arends, 1997).
2. **Eliciting Performance:** Students are "to demonstrate what they have learned without penalty" (Driscoll, 1994, p. 355). One method would be to have students complete an online interactive quiz. Another method would be for students to role play a specific counseling technique in front of a camera in the interactive television classroom.

Evaluation of the Learning Process

At the end of a class meeting in a face-to-face course, instructors often reflect on what went well in terms of content delivery, activities, and assessment methodologies as well as the feedback they receive from students. This reflective process is also important in distance learning courses.

In distance learning courses this evaluation of the learning process is of great significance because of concerns over the "quality" of distance learning courses. Many institutions are formally evaluating distance learning delivery at both the individual class meeting level and the course level in an effort to comply with the requirements of regional accrediting bodies. One such agency, the Southern Association for Colleges and Schools, Commission on Colleges (1998) stated that an institution of higher education must be able to document that "its distance learning programs are effective" (p. 40). Other regional accrediting bodies have similar types of requirements.

Conclusion

This chapter focused on assisting counselor educators in the process of designing courses for delivery using distance learning technologies. This design process was presented in an integrated approach that combined macro-level instructional design and micro-level instructional design. The Instructional Design Checklist, which follows, is included to assist faculty members in applying these concepts to their distance learning courses. For additional information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/04

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Macro-Level Instructional Design Checklist

Course Title: ____

Analysis of the Learning Environment	
Cognitive Characteristics	
Physiological Characteristics	
Affective Characteristics	
Social Characteristics	
Distance Learning Specific Characteristics	
Other Characteristics	

Macro-Level Instructional Design Checklist

[Continued]

Establishment of Course Goals (Verbal Information, Intellectual Skills, Cognitive Strategies, Motor Skills, Attitudes)	
1	
2	
3	
4	
5	
Selection of Instructional Delivery System(s)	
Primary System	
Secondary System	
Special Instructional Delivery Concerns	

Macro-Level Instructional Design Checklist

[Continued]

Methods of Student Assessment (Link to Course Goals)	
1	
2	
3	
4	
5	
Evaluation of the Learning Process	
Content Delivery	
Assessment Methodology	
Student Feedback	
Other:	

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Micro-Level Instructional Design Checklist

Course Title: ______________________________

Topic: ______________________________

Analysis of Learner Readiness	
Students' Prior Experience with Topic	
Establishment of Instructional Objectives (Verbal Information, Intellectual Skills, Cognitive Strategies, Motor Skills, Attitudes)	
1	
2	
3	
4	
5	

Micro-Level Instructional Design Checklist

[Continued]

Selection of Instructional Techniques and Resources	
Techniques & Activities	
Print-Based Resources	
Computer-Based Resources	
Audio/Video Resources	
Assessment of Student Learning (Link to Instructional Objectives)	
1	
2	
3	
4	
5	

Micro-Level Instructional Design Checklist

[Continued]

Evaluation of the Learning Process	
Content Delivery	
Instructional Objectives	
Assessment Methodology	
Student Feedback	
Other	
Special Issues Related to Topic	
Facilities	
Equipment	
Other	

PART II

DISTANCE LEARNING
AND
COUNSELOR PREPARATION

5 Ethical, Legal, and Related Considerations
6 Where to Start and What to Do
7 Selecting Delivery Methodologies

Chapter Five

Ethical, Legal, and Related Considerations

According to the *Code of Ethics and Standards of Practice of the American Counseling Association* [ACA] (1995), "Counselors conduct counselor education and training programs in an ethical manner and serve as role models for professional behavior" (§F.1.a). A paramount responsibility for the instructor should be ensuring that the course is conducted in a manner that is both ethical and legal, as well as demonstrating the highest levels of quality and professionalism. This is true whether teaching a course face-to-face or through use of distance learning technologies.

The focus of this chapter is on addressing the issues of (a) confidentiality, (b) academic integrity, (c) quality control, (d) accreditation, and (e) copyright within the context of teaching with distance learning technologies. These are many of the same issues that are considered by counselor education faculty members when teaching a face-to-face course. However, within a distance learning environment each of these issues has some unique concerns.

Confidentiality

Throughout a course, whether it is being taught face-to-face or via distance learning technologies, many counseling faculty members stress the importance of confidentiality with students. In fact, some counselor preparation programs require students to read and sign confidentiality agreements at the beginning of each course as another method of reinforcing the importance of this issue.

The issue of confidentiality should be of concern in all counseling courses. However, in clinical supervision courses, confidentiality and client privacy should be of special concern without regard to whether this course occurs face-to-face or using distance learning technologies. In clinical supervision courses, faculty members will normally develop protocols for providing opportunities for case consultation within the context of maintaining confidentiality and client privacy. The same type of protocols developed for face-to-face courses can be adapted for use in distance learning courses. For example, "Supervisors and student counselors can use ID numbers instead of client names" (Coursol & Lewis, n.d.) or client initials. In a similar manner, it might be advisable to use ID numbers for the student counselors in lieu of their names.

As previously discussed, one of the features of many of the distance learning technologies (e.g., audio conferencing, videoconferencing, online courses) is the ability to "record" class interactions (e.g., audiotape, videotape, chat log files). As an instructional tool, this can be a powerful feature because it allows faculty members and students to review these class interactions at a later time. However, this feature also raises some additional confidentiality concerns. Specifically, this recording is usually accomplished at a centralized campus location through an automated process (e.g., chat log files) or by a member of the distance learning technology support staff (e.g., audiotape and videotape).

Therefore, prior to planning a distance learning course, it would be advisable for faculty members to talk with the director of the campus distance learning staff concerning the issue of confidentiality of these records. These are the same types of issues that a counselor would address in working with office support staff (i.e., "Counselors make every effort to ensure that privacy and confidentiality of clients are maintained by subordinates including employees, supervisees, clerical assistants, and volunteers" [ACA, 1995, §B.1.h]).

Academic Integrity

The Center for Academic Integrity [CAI] (1999) defined academic integrity as:

> A commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility. From these values flow principles of behavior that enable academic communities to translate ideals into action . . . .
>
> Research by CAI members and many others shows that student cheating is on the rise and that the pressures and opportunities for dishonest behavior are increasing in many academic and professional contexts.

Critics of distance learning suggest that academic integrity is of special concern in distance learning environments. The issue of academic integrity should be a concern of all faculty members whether they teach a face-to-face or distance learning course. The basic principles of academic integrity that are applied to face-to-face courses can be adapted for distance learning environments. For example, the Pennsylvania State University (2000) *Distance Education Course Catalog 2000-2001* stated:

> Maintaining academic integrity-scholarship free from fraud and deception-is an important educational objective of Penn State Distance Education . . . .
>
> Academic dishonesty includes, but is not limited to, cheating, plagiarism, fabrication of information or citations, facilitating acts of academic dishonesty by others, unauthorized prior possession of examinations, submitting work of another person or work previously used without informing the instructor and securing written approval, or tampering with the academic work of other students.

The issues highlighted by the Pennsylvania State University (2000) are the same issues that must be addressed by instructors in face-to-face courses. Thus, in most situations, the processes and procedures developed by faculty members to address these issues in face-to-face courses would be applicable to distance learning courses.

Specifically looking at academic integrity in online courses, Carnevale (1999) noted:

> Measuring the extent of on-line cheating is difficult. No national data exist. Several colleges with extensive distance-education programs — including Michigan State University, Ohio University, the University of Texas System, Park College, and Pueblo Community College — report that they have had few, if any cases, where disciplinary action has been taken for cheating in on-line classes. More cheating is reported in traditional classrooms, officials say.
>
> The potential for cheating in distance-education courses is about equal to that in traditional courses. (p. A47)

However, for faculty members teaching distance learning courses, often the most difficult issue concerns testing of "remote" students. These remote students may be participating in the course from either their homes or offices (e.g., online courses), or a remote classroom (e.g., interactive television courses).

For institutions that have large distance learning programs, the procedures for testing of remote students normally are coordinated by the institution's distance learning support staff. Four common methods used by institutions for testing are:

1. The institution provides exam proctors at remote classrooms. In this situation, students enrolled in online courses would be required to travel to a designated classroom (local or remote) at a designated time for exam administration.
2. The institution makes arrangements with the testing offices at community colleges or high schools for the proctoring of student exams either individually or in small groups.
3. The institution may require the student to find someone that meets the institution's requirements to serve as a proctor. In this situation, the student would not be permitted to register for courses until the institution has approved the individual's proctor. The distance learning staff would handle this approval process.
4. The institution may use some type of online testing technology. The protocols established by the institution may require the students to complete this testing in either a proctored or un-proctored environment.

For institutions that have smaller distance learning programs, the obligation for handling testing of remote students may be the sole responsibility of the course instructor. If this is the case, the instructor may require remote students to travel to the main campus for testing (e.g., midterm and final).

In general, the issues of academic integrity for distance learning courses are the same issues faced by faculty in face-to-face courses. According to Wilson (1999), "Want to stop students from cheating on exams and plagiarizing papers? Tell them about honesty, trust, fairness, respect, and responsibility" (p. A18).

Quality Control

Just as faculty members are concerned about the quality of students' work, institutions are concerned about the quality of both face-to-face and distance learning courses. According to the Council for Higher Education Accreditation (1998), "Strategies for assuring quality in distance learning are not fundamentally different from strategies used in conventional institutions" (p. 23). It appears that quality issues in distance learning courses can be addressed in much the same manner in which they are addressed in face-to-face courses. Specifically, quality can be measured using three related processes: (a) "benchmarking," (b) achievement of external standards, and (c) achievement of internal standards.

Benchmarking

The first method used to measure quality is a process known as benchmarking. The American Productivity and Quality Center (n.d.) defined benchmarking as "the process of identifying, learning, and adapting outstanding practices and processes from any organization, anywhere in the world, to help an organization improve its performance." An institution that utilizes benchmarking attempts to compare the institution to other institutions that are perceived to be of higher quality in selected areas. This concept is sometimes identified as "best practice." To elucidate, if an institution wanted to evaluate its counselor preparation practicum program, it would look at the best practicum programs and compare its program to those programs.

External Standards

The second method used to measure quality is achievement in relation to external standards. An institution that utilizes external standards attempts to compare the institution to the standards established by a professional association with which the institution or specific academic programs within the institution are affiliated.

An example of a professional association with which an institution would be affiliated could be the Southern Regional Education Board (SREB). The SREB member states are Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The SREB (1999) developed a document entitled *Principles of Good Practice*. This document outlines expectations and requirements for offering distance learning courses though the SREB Electronic Campus.

An example of a professional association with which an academic program (i.e., counselor preparation) could be affiliated would be the ACES. In May 1999, the ACES Executive Council endorsed a document entitled *ACES Guidelines for Online Instruction in Counselor Education*. Similar to the SREB document, this ACES document provided a set of standards that an institution could use to measure the quality of its distance learning efforts.

Internal Standards

The third method used to measure quality is achievement of internal standards. These measures involve an institution setting internal standards and comparing actual performance to these standards. To clarify, in order to ensure that students are receiving up-to-date information, a counselor preparation program may set a standard that requires all course textbooks to have a copyright within the past two years. To measure itself against this standard, the program could review faculty book requests.

Integrating Internal and External Standards

In general, these three processes can be used together. First, an institution benchmarks against the "best practice" of high quality institutions and/or against a set of external standards. Next, the institution establishes internal standards based on these benchmarks and/or external standards. Finally, an institution compares actual events to these internal standards. The goal of this process is to raise the level of actual performance to the level of the best practice or other external standards.

The Institute for Higher Education Policy (2000) reported:

> Extraordinary growth of technology-mediated distance learning in higher education has prompted several different organizations to develop principles, guidelines, or benchmarks to ensure quality distance education. These organizations include the American Council on Education, the National Education Association, the Global Alliance for Transnational Education (GATE), the Southern Regional Electronic Campus, the Commission on Higher Education of the Middle States Association of Colleges and Schools, and the Western Cooperative for Educational

> Telecommunications, among others. The quality assurance benchmarks promoted by these organizations are designed to apply to a wide variety of institutional contexts and consist of fairly broad statements. Virtually all of the strategies include such topics as course development, faculty training, student services, learning resources, infrastructure, and outcomes assessment.
>
> These benchmarks, which were developed initially for all types of distance learning, have been in existence in various forms for a number of years. (p. 5)

The six topics areas (i.e., infrastructure, faculty training, student services, course development, learning resources, and outcomes assessment) that were suggested by the Institute for Higher Education Policy provide a solid framework for discussing the quality of any distance learning course.

Infrastructure

This issue focuses on the quality of the institution's infrastructure to support the teaching and learning process. In the area of distance learning, this could include matters related to the capability and reliability of the distance learning technologies. Issues to examine include the following:

- Appropriate types of distance learning technologies should be available to support a distance learning course. For example, it may not be feasible for a campus to deliver online courses without the appropriate hardware and software to support these efforts.
- Distance learning technologies should perform in a reliable manner on a regular basis throughout the course. To illustrate, interactive television courses should not be cancelled on a consistent basis due to "technical difficulties."

Faculty Training

This area targets the faculty member's preparedness to teach the course. In a distance learning environment, this would also include the faculty member's use of the distance learning technologies. Some issues to consider include:

- The faculty member should be aware of which distance learning technologies could be integrated into the course. Prior to planning the course, a faculty member needs to understand the technology options available on his or her campus. For example, the faculty member needs to know if desktop videoconferencing equipment is available on campus.
- The faculty member should be aware of how to use the distance learning technologies needed for the course. In addition to having knowledge of the availability of the technologies, a faculty member should also receive proper support in learning how to utilize the technologies in the course. For instance, the faculty member needs to know how to use the equipment in the interactive television classroom.
- In addition to having knowledge on how to use the various available technologies, a faculty member also should integrate these distance learning technologies into the course. To elucidate, the faculty member should know how to incorporate the use of web-based bulletin boards and chat features in an online course.
- The faculty member should effectively and consistently use the distance learning technologies in the course. For example, the faculty member must be

able to interact with students using the web-based bulletin boards and chat features in an online course.

Student Services

This pertains to overall support of students in both face-to-face and distance learning courses. In distance learning courses, these issues generally involve student access to technical support in using the distance learning technologies. Some issues to consider are:

- The institution should provide students with access to technical support and the training necessary for using distance learning technologies. To illustrate, the institution should provide a "help desk" for students to call if they are experiencing problems accessing online course materials.
- The faculty member should provide students with information on how to obtain technical support and training for using distance learning technologies. An example would be to have the faculty member include information concerning technical support for students in the course syllabus.
- The students should effectively use the distance learning technologies in the course. For example, the student must be able to interact with the instructor and other students using the web-based bulletin boards and chat features in an online course.

Course Development

As in face-to-face courses, this area centers on the overall course structure. One technique for assessing the quality of course development would be to compare the macro-level instructional design of the distance learning course to the macro-level instructional design of the same course taught in a face-to-face situation. Some points to be examined include:

- The goals in face-to-face delivery and distance learning delivery of courses should be substantially equivalent. The course goals should be based on the same course description. Therefore, the course goals should be substantially equivalent. If not, the faculty member may be expecting less from students at a distance.
- The content in face-to-face delivery and distance learning delivery of the courses should also be substantially equivalent. Like the course goals, the course content should be based on the same course description. Thus, the course content should be substantially equivalent. If not, the faculty member may not be exposing the students in a distance learning environment to the same body of knowledge.
- The level of interaction in face-to-face delivery and distance learning delivery of the courses should be substantially equivalent. In both environments, the students should be provided opportunities to interact with the instructor and with each other during the course. The nature of interaction will vary between face-to-face and distance learning courses. Yet, in both course settings student interaction should be an integral component of the course.
- Student assessment strategies in face-to-face delivery and distance learning delivery of courses should be substantially equivalent. If the goals of the courses are fairly equivalent, the techniques for assessing achievement of these goals should also be equivalent in nature.

A second technique for assessing the quality of course development might be to compare the distance learning course's macro-level instructional design plan with how the course was actually implemented. Issues to reflect on are:

- The distance learning course should follow the original course design that was organized during the planning process prior to the beginning of the course.
- If there are deviations from the original plan, these deviations should contribute in a positive manner to student learning. Any deviations made from the original plan should be made only in an effort to enhance student learning.

Learning Resources

This focuses on (a) selecting appropriate learning resources (e.g., textbooks, journal articles, web sites, videotapes) for students and (b) providing students access to these learning resources. Issues worth considering might be:

- The learning resources in face-to-face delivery and distance learning delivery of the courses should be tangibly equivalent. For example, if viewing a selected videotape demonstration is essential for the courses, the faculty member needs to incorporate the appropriate distance learning technology or other mechanism for students to view this tape.
- Students at a distance should be provided the opportunity to utilize these learning resources from their remote locations. An illustrative method would be to make library reserve readings available "online" instead of having the student travel to campus.

Outcomes Assessment

Outcomes assessment centers on student achievement in courses. One effective way of measuring outcomes in distance learning courses is to compare the distance learning course to the same course being taught using a face-to-face delivery system. Additional issues to consider include:

- Student performance in face-to-face and distance learning delivery of courses should be equivalent pertaining to various course assessment methodologies. If the assessment methodologies are similar, the performance on these assessments should also be similar. Thus, if the same final exam was administered in the face-to-face and distance learning courses, the students' scores on these exams should be virtually the same.
- Student final grades in face-to-face delivery and distance learning delivery of the courses should also be substantially equivalent.
- Student attrition (i.e., drop-out) rates in face-to-face delivery and distance learning delivery of courses should be consistent with one another.

In general, the quality concerns of distance learning courses are very similar to the quality issues of face-to-face courses. However, a few differences will exist due to technological factors. One tool for assisting faculty members in their quality control efforts for distance learning courses is the "Quality Assurance Checklist" at the end of this chapter.

Accreditation

Another area closely related to quality assurance is the concept of accreditation. In the accreditation process, institutions are reviewed by external evaluators against a specified set of criteria.

Accreditation of the institution by one of the six regional associations (i.e., Middle States Association of Colleges and Schools, New England Association of Schools and Colleges, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges) impacts all counselor preparation programs. Some programs have gone on to pursue accreditation by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Regional Accreditation

Each of the regional accrediting bodies has developed unique policies for the evaluation of distance learning programs within institutions. Illustrative of this, the New England Association of Schools and Colleges Commission on Institutions of Higher Education (1998) established a *Policy for the Accreditation of Academic Degree and Certificate Programs Offered through Distance Education.* This policy highlights 11 areas: (a) Mission and Purposes, (b) Planning and Evaluation, (c) Organization and Governance, (d) Programs and Instruction, (e) Faculty, (f) Student Services, (g) Library and Information Resources, (h) Physical Resources, (i) Financial Resources, (j) Public Disclosure, and (k) Integrity.

This policy differs from the distance learning policies of the other regional associations. For example, the North Central Association Commission on Institutions of Higher Education (2000) developed *Guidelines for Distance Education* which focus on only five areas: (a) Curriculum and Instruction, (b) Evaluation and Assessment, (c) Library and Learning Resources, (d) Student Services, and (e) Facilities and Finance.

According to Carnevale (2000), this uniqueness could change. These organizations:

> are near agreement on guidelines for evaluating distance education that differ from traditional accrediting standards by focusing on how much students learn.
>
> If enacted, the regional accrediting agencies would use the guidelines to set standards for granting accreditation to distance-education programs and institutions.
>
> Under the guidelines, the regional bodies would evaluate a distance-education program by considering a number of factors, including whether faculty members controlled the creation of the content, whether the institution provided technical and program support for both faculty members and students, and whether the program had evaluation and assessment methods for measuring student learning. (p. A58)

If this change is enacted, it could significantly impact the methods used to evaluate distance learning programs across the United States. However, until regional accrediting associations act on this type of comprehensive proposal, it is paramount for faculty members to understand the current regional accreditation standards for their own institution.

CACREP

The 1994 standards do not address the issue of distance learning. However, the 2001 standards do address distance learning. Specifically, these standards state:

> CACREP recognizes that alternative instruction methods (for example, distance learning) are currently used in many counselor education programs. The following principles apply when evaluating these programs:
>
> a. programs that use alternative instruction methods will be evaluated with the same CACREP Standards for accreditation as programs that employ more traditional methods;
>
> b. accreditation for such programs will be based on their demonstrated compliance with CACREP standards; and
>
> c. programs that use alternative instruction methods are subject to the same level of review as programs that employ more traditional methods.

Therefore, for those institutions seeking initial accreditation or re-accreditation under the 2001 CACREP standards, their programs will need to demonstrate compliance with the 2001 standards for distance learning courses.

Bobby and Capone (2000) noted, "Each one of the current 1994 standards has been examined to determine if it impedes programs from incorporating distance learning technologies" (p. 370). A review of the 2001 standards shows a change in focus from the 1994 standards (i.e., the 1994 standards were more prescriptive regarding what programs will and will not do in order to be eligible for accreditation). Instead, the 2001 standards appear to focus more on program outcomes.

Hollis (2000) noted five reasons that a counseling-related program would pursue program accreditation by CACREP or one of the other counseling-related accreditation organizations (e.g., Commission on Accreditation for Marriage and Family Therapy Education). These reasons were that accreditation:

> 1. assures all concerned that the program meets high professional standards
> 2. assures periodical review of the program
> 3. assures applicants that the program meets high standards
> 4. provides a base for pride for faculty, students, and the college or university as they become contributors to and involved in a nationally recognized program
> 5. offers graduates of the program the advantage of having graduated from an accredited program. (p. 22)

However, for a variety of reasons, some counselor preparation programs choose not to pursue CACREP accreditation. Whether a program pursues CACREP accreditation or not, the 2001 CACREP standards certainly provide a good reference point for counseling-related programs in their quality assurance efforts.

Copyright

One challenge in developing a high quality distance learning course concerns finding techniques to provide student access to a variety of learning resources without violating copyright law. Boettcher and Conrad (1999) noted, "In practice, copyright owners do not sue for every violation . . . . [However,] higher education institutions can still be very vulnerable. Therefore, faculty need to be aware of the real possibility of lawsuits from the illegal use of copyrighted materials" (p. 103).

Prior to beginning a discussion of copyright, three caveats must be noted.

1. Neither of the authors are lawyers. The information contained in this document does not constitute legal advice. No claims, promises or guarantees about the accuracy, completeness, or adequacy of the information contained in this document are made. As legal advice must be tailored to the specific circumstances of each case, and laws are changing constantly, nothing provided herein should be used as a substitute for the advice of competent legal counsel.
2. Many higher education institutions have developed campus policies concerning copyright and such policies should serve as primary references for faculty members within these institutions.
3. Definitive copyright guidelines, especially in the context of "fair use" within distance learning are still in a state of flux.

On October 28, 1998, the Digital Millennium Copyright Act was enacted into law. In part, this legislation revised copyright law to address advances in digital storage, transmission, and retrieval. Additionally, section 403(a) of this Act directed the Register of Copyrights to "submit to the Congress recommendations on how to promote distance education through digital technologies, including interactive digital networks, while maintaining an appropriate balance between the rights of copyright owners and the needs of users of copyrighted works."

During May 1999, the U.S. Copyright Office submitted the document entitled *Report on Copyright and Digital Distance Education* to Congress. According to Crews (1999), this report:

> addresses many of the difficult issues surrounding the use of copyrighted works in distance education. The Copyright Office also proposes revisions to the law that would achieve a more meaningful and workable balance between the rights of copyright owners and users, while promoting the continued growth of distance education using digital technologies. Should Congress enact those proposals, educators would have new options for including some copyrighted works in transmissions to students at remote locations. In addition, educators would need to limit access to students enrolled in the course, implement systems for informing students and others about copyright, and strive to prevent misuse of copyrighted content by students through education programs and warning notices.

Until Congress amends the Digital Millennium Copyright Act (1998) to address the problems noted in the report from the U.S. Copyright Office (1999), faculty members will need to work within the limitations of the current statutes and guidelines for academic fair use. Harper (1998) suggested using a "Four Factor Fair Use Test." Harper identified the four factors as:

1. What is the character of the use?
2. What is the nature of the work to be used?
3. How much of the work will you use?
4. What effect would this use have on the market for the original or for permissions if the use were widespread?

In general, when using Harper's test or any other method to attempt to determine fair use, it is imperative to consider two issues:

1. If a faculty member is accused of violating someone else's copyright by

use of his or her materials, ultimately the decision of whether the faculty member's actions were copyright violations or fair use may rest in a court of law.

2. If a faculty member is not sure that the use of someone else's copyrighted materials falls under fair use, it is best to ask for permission from the copyright holder.

Conclusion

This chapter addressed the issues of (a) confidentiality, (b) academic integrity, (c) quality control, (d) accreditation, and (e) copyright within the context of teaching counseling with distance learning technologies. As noted in the discussion, these are many of the same issues that are considered by faculty members when teaching a face-to-face course. However, as also noted, within a distance learning environment each of these issues has some unique concerns. For additional information pertaining to these issues, see the chapter's companion web site at

http://www.albrecht-jones.com/distance/05

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Quality Assurance Checklist

Course Title: ______________________________

Infrastructure	Yes/No	Evidence
Are the appropriate types of distance learning technologies available to support a distance learning course?		
Do the distance learning technologies perform in a reliable manner on a consistent basis throughout the course?		
Faculty Training	**Yes/No**	**Evidence**
Was the faculty member aware of which distance learning technologies could be integrated into the course?		
Was the faculty member informed on how to use the distance learning technologies needed for the course?		
Did the faculty member appropriately integrate distance learning technologies into the course?		
How effectively and consistently did the faculty member use the distance learning technologies needed for the course?		
Student Services	**Yes/No**	**Evidence**
Does the institution provide students with access to technical support and training for using distance learning technologies?		
Does the faculty member provide students with information on how to obtain technical support and training for using distance learning technologies?		
How effectively did the students use the distance learning technologies needed for the course?		

Quality Assurance Checklist

[Continued]

Course Development	**Yes/No**	**Evidence**
Were the goals substantially equivalent?		
Was the content substantially equivalent?		
Were the students' opportunities to interact with the instructor and with each other substantially equivalent?		
Were the student assessment strategies substantially equivalent?		
Did the course follow the original course design that was organized during the planning process prior to the beginning of the course? If not, did these deviations positively contribute to student learning?		
Learning Resources	**Yes/No**	**Evidence**
Were the learning resources substantially equivalent?		
Were students at a distance provided the opportunity to utilize these learning resources from their remote locations?		
Outcomes Assessment	**Yes/No**	**Evidence**
Were the students' performances on the various course assessment methodologies substantially equivalent?		
Were the students' final grades substantially equivalent?		
Were student attrition rates from the courses substantially equivalent?		

Chapter Six

Where to Start and What to Do

Hammon and Albiston (1998) reported, "Preparing to teach a course long distance [using distance learning technologies] takes more time. Most professors we know and those faculty members who teach long distance on our campus use a variety of technology" (p. 73). The results of a survey conducted by the National Education Association (2000) reported similar findings. Specifically, "Over half (53%) of the distance learning faculty spend more hours per week preparing and delivering their distance learning course than they do for a comparable traditional course" (p. 7).

The personal experiences of the authors mirror the views expressed by Hammon and Albiston (1998) as well as the National Education Association (2000) report. Clearly, the development of a "high quality" distance learning course requires a major commitment by a faculty member. Without this commitment, the potential for poor or shoddy delivery of a distance learning course would increase dramatically.

Designing a distance learning course, especially for the first time, can easily become a daunting task for any faculty member. Therefore, the focus of this chapter is to help make this task a little more manageable by (a) assisting faculty members to identify support structures and resources within the campus environment, (b) providing strategies for confronting barriers to distance learning within the campus environment, and (c) providing faculty members with a general timeline to use in preparing a distance learning course.

Support and Resources within the Organization

Prior to committing to teach a distance learning course, a faculty member may want to investigate the types of support services and resources that are available to him or her. Ideally, these resources are available from within the campus environment. However, in some situations, it may be necessary for a faculty member to look to colleagues at other institutions for support. Some of the most important issues that a faculty member may want to investigate prior to making the commitment to conduct a distance learning course could include: (a) availability of faculty training, (b) availability of course development support, (c) availability of course delivery support, and (d) availability of library services to support distance learning.

Faculty Training

According to Cyrs (1997):

> There are only two professions that do not require any type of training – teaching at the college level and parenting. The latter is something that many of us have experienced or will experience. The former – teaching – affects the lives of many students, potentially thousands. It is and has been assumed that a Ph.D. degree in a special academic discipline is an adequate license to teach. The assumption is that knowledge of the subject matter also means that you have the skills to communicate it . . . . We can question why, if instructors have little or no training in teaching in a traditional

> classroom, they should be expected to produce quality telecourses. (p. 20).

Cyrs was specifically addressing the preparation of one type of distance learning course (i.e., interactive television), but this argument could apply to any type of distance learning course. For many faculty members the availability of faculty training is an important factor in the decision of whether or not to teach a distance learning course. According to the National Education Association (2000), "The majority of distance learning faculty (70%) report that workshops and training sessions on teaching distance learning courses are available to them on a regular basis, and they have participated in a training session" (p. 25).

The exact content of these sessions will vary from campus to campus in terms of both breadth and depth. For example, some campuses may provide a single two-hour workshop, while other campuses may provide a more extensive program. For example, one of the authors has previously conducted a 40-hour training program for faculty members. The amount of training necessary for a faculty member will be based on a number of factors which include the faculty member's (a) prior experience in teaching with technology, (b) prior experiences as a student in a distance learning course, and (c) perceived need for training.

It is important not only that training specific to distance learning be available on campus, but that this training assist the faculty member in applying these training concepts to courses within his or her discipline. It is the authors' experience that many distance learning trainers do not understand how to assist faculty members in applying the training to a specific discipline (e.g., counselor preparation). In these situations, it may be important for a counselor education faculty member to network with counselor education faculty members from other institutions who have experience teaching at a distance. Currently, the ACES provides two methods (i.e., Technology Interest Network, Distance Learning Task Force) of networking with other counselor education faculty members interested in teaching with technology in both face-to-face and/or distance learning environments. For information on becoming involved in either of these ACES groups, see the links on this chapter's companion web site.

Course Development Support

In addition to providing faculty members with training, many campuses provide staff to assist the faculty member in actually planning and developing materials to support a distance learning course. The level and nature of support will vary from campus to campus. At one extreme, the campus staff may develop the entire content of the course for the faculty member. In this case, the faculty member serves as the content expert. At the other extreme, the campus may provide no support to the faculty member in the course development process.

Our experiences indicate that most campuses fall somewhere in between these two extremes. First, many campuses provide faculty members with a graduate assistant or other student staff to aid in the course development process. In the best case scenario, the student staff member has received some special training related to distance learning, but reports directly to the faculty member. Second, the campus staff may be available for consultation and may assist in the development of some of the course materials (e.g., web pages, presentation graphic slides).

Some faculty members are more willing to utilize these services while other faculty members are not. The reasons that faculty members choose not to utilize available services vary. However, some of the primary reasons that faculty members fail to utilize available course development services include:

1. A concern by the faculty member that he or she will lose control over the content of the course. In most instances, the course developers will only work with the materials that are provided by the faculty member. Yet, in institutions with several course developers on staff, the institutional staff may take a more active role in independently developing content. In these instances it is important that prior to collaborating with the course developers, the faculty member and the course developer clarify the roles of each individual in the course development process.

   According to the National Education Association (2000):

   > Most distance learning faculty see themselves as designers of course content, and not simply as managers of information. In considering whether they are more the content designer or the manager of information in the courses, 37% say the designer of content, 20% say the manager of information, and 41% say both. (p. 28)

   Therefore, according to this survey, only 20% of faculty members had turned over content control to someone else.

2. An inability on the part of the faculty member to be able to provide materials to the course development specialists for conversion into a distance learning format. In this case, the faculty member may have limited experience in teaching this particular course in a face-to-face environment and thus has limited notes, handouts, and other materials. Normally, the course development specialist can only work with the materials that are provided by the faculty member.

3. A concern by the faculty member that he or she will lose intellectual property rights (i.e., ownership) to the materials produced. Depending on the institutional policies, the intellectual property rights for materials produced primarily by campus staff may rest with the institutions rather than with the faculty member. For more information in this area, see the "Intellectual Property" section of this chapter.

Course Delivery Support

A corollary to providing faculty members with course development support used on many campuses is the provision of staff support during the delivery of the course. The level and nature of support will vary from campus to campus. Also, the level and nature of support will vary based on the type of distance learning technologies being utilized by the faculty member. At one extreme, the campus may provide a "24-7" (i.e., ongoing) staffing model using a combination of full-time professional and specialty-trained student workers. Here, staff is always available to assist both faculty members and students with technical support. At the other extreme, the campus may provide limited support during course delivery (i.e., someone is available only during regular business hours).

To further illustrate, in an interactive television environment this course delivery support may or may not include having individuals serve as on-site facilitators in remote classrooms. If on-site facilitators are furnished, these individuals may be actively involved in the class (e.g., facilitating discussion in a remote classroom) or serving as the faculty member's hands (e.g., collecting and handing out papers), eyes (e.g., proctoring exams), and ears (e.g., answering logistical/technical questions) at the remote classroom.

As a faculty member teaching a distance learning course, especially for the first time, it is extremely important to know the type of support that will be available throughout the duration of the course. Even though some faculty members do not utilize course development support, most faculty members appreciate course delivery support for two reasons:

1. If technical support people are there to answer student questions concerning technical issues, the faculty member can focus on his or her area of expertise (i.e., the content).
2. If technical support people are available to answer faculty questions concerning technical issues, the faculty member does not need to memorize the various protocols and procedures for each of the distance learning technologies used in the course. Here, if a problem occurs, the faculty member only needs to call the technical support staff.

Library Resources

According to Naylor and Hinchliffe (1999), "Library service is perhaps the academic service that is most integral to the curriculum of a college or university. For some courses, removing access to the library resources impairs learning immensely and completely changes the nature of the course in question" (p. 493). Thus, one of the biggest obstacles that many faculty members must address in planning a distance learning course pertains to finding methods for students to access the resources of the campus library. Over the past decade, the nature of many campus libraries has changed dramatically. Specifically, most libraries have moved from being buildings for storing printed books and journals to being centerpieces of electronic information retrieval. Nevertheless, it is still imperative for all students, especially those at a distance, to have access to copies of the entire library holdings.

In 2000, the Association of College and Research Libraries (ACRL) approved a document entitled *Guidelines for Distance Learning Library Services*. According to the ACRL this document was revised due to the following factors:

> non-traditional study becoming a more commonplace element in higher education; an increase in diversity of educational opportunities; an increase in the number of unique environments where educational opportunities are offered; an increased recognition of the need for library resources and services at locations other than main campuses; an increased concern and demand for equitable services for all students in higher education, no matter where the "classroom" may be; a greater demand for library resources and services by faculty and staff at distance learning sites; and an increase in technological innovations in the transmittal of information and the delivery of courses. To these may be added the decrease in central campus enrollments, the search for more cost-effective sources for post-secondary education, and the appearance and rapid development of the virtual or all-electronic university, having no physical campus of its own.

If implemented on a campus, these guidelines can contribute significantly to making library resources more readily available to all students, especially those at a distance. Therefore, when planning a distance learning course, it is important for a faculty member to discuss library access needs with members of the campus library staff early in the course planning process.

However, providing access to remote students may not be enough. Grealy (1998) noted that "remote access to electronic library materials is not particularly new, but the process of training remote users to utilize them effectively is" (p. 133) new. Consequently, it may be important for the faculty member to consider some type of electronic library orientation as part of a distance learning course.

The specific library requirements for students will vary from course to course. Many courses within a counselor preparation program require students to read and understand the literature within the various aspects of the program. Yet, if all or part of the counselor preparation program is going to be delivered using distance learning technologies, the access to library resources should merit serious consideration for the counselor education faculty members. "A quality distance education program requires quality library services and resources" (Naylor & Hinchliffe, 1999, p. 496).

Barriers Within the Organization

Prior to committing to teach a distance learning course, a faculty member may want to investigate the types of barriers that potentially could be obstacles to him or her in successfully designing and delivering a distance learning course. In addition to issues involving faculty training, course development support, course delivery support, and library resources; some of the most salient items to probe prior to making the commitment to conduct a distance learning course may include (a) the institution's policy on copyright, (b) the institution's policy on intellectual property, and (c) the institution's incentives/disincentives for the development and delivery of distance learning courses.

Copyright / "Fair Use" Policy

As discussed in Chapter 5, one challenge in developing a high quality distance learning course focuses on finding techniques to provide student access to a variety of learning resources without violating copyright law. This makes it important for faculty members to understand their campus policy concerning copyright and "fair use." Some copyright policies provide faculty members with greater latitude in the application of "fair use" guidelines and some provide less latitude in this area. Generally, a faculty member is not in the position to revise the campus "fair use" guidelines. But, the faculty member does have an ethical obligation to work within these guidelines.

Intellectual Property Policy

This policy concerns ownership of the content of a course. In past situations this was not a critical matter because most faculty members did not want to sell their course content to others, and more importantly, other institutions or publishers did not want to buy the course content. The advent of distance learning has started to make this a potentially vital issue for faculty members. Many faculty members are beginning to place their course content into an organized electronic format, known in the industry as "courseware." According to Maitland (1998), "Administrators did not care about owning faculty members' lecture notes or books that sold 500 copies. But the market is hungry for courseware and now those notes suddenly have value, especially when they are in an electronic format" (p. 2).

Whether or not a market actually exists for a faculty member's course should not be the primary concern of the faculty member. Rather, the issue should focus on whether or not a faculty member owns the content of the course. Therefore, if the faculty member owns the course content, then the faculty member has the right to sell the content of the course. Within this context, several factors should be considered:

1. As indicated in the previous chapter, neither of the authors are lawyers. The information contained in this document does not constitute legal advice. No claims, promises or guarantees about the accuracy, completeness, or adequacy of the information contained in this document are made. As legal advice must be tailored to the specific circumstances of each case, and laws are changing constantly, nothing provided herein should be used as a substitute for the advice of competent legal counsel.

2. Intellectual property policies vary greatly from institution to institution. Since this is the case it is of paramount importance that a faculty member understand the policies on his or her campus before developing a distance learning course. According to the National Education Association (2000):

   > Of the 78% of the professors who say they design the content of the courses, the largest percentage (80%) develop original course content and only 18% use mostly pre-packaged materials. Of those who develop original course content (247 respondents), less than one-third (30%) say they own the property rights to the materials they create, and 44% say they do not. One-quarter (26%) do not know if they own the property rights or not. Finally, of the 78% of the respondents who are designers of content, one-quarter (26%) have professional assistance in choosing and developing materials. (p. 29)

   The results of this survey suggest that many faculty members are developing original content on their own (i.e., without the assistance of campus staff), yet they do not own the property rights to this content.

3. In the absence of a clear intellectual property rights policy that specifically addresses the issue of distance learning, the issue of property rights, especially in this area, remains unclear. According to Enghagen (1997):

   > In the typical case, a faculty member owns his or her prepared notes and other course materials. But in the absence of a specific agreement, ownership of live broadcasts and video-taped courses is less clear. On the one hand, if the . . . course is broadcast or taped as part of the faculty member's regular duties, the university may claim ownership as the employer. On the other hand, as the owner of the underlying notes and materials, the faculty member may claim ownership on the basis that the broadcast or videotape is a derivative work. (p. 159)

   Thus, it may be advisable to reach a specific agreement with the institution concerning the property rights of the course content prior to designing the course.

4. In the absence of a clear policy or a specific agreement with the institution, a faculty member may want to consider the following:

   a. If all materials are developed using personal equipment (e.g., computers, cameras) at the faculty member's home, no university resources need be used in conjunction with the development of these materials.

b. If web-based materials are being developed, the faculty member should obtain his or her own web presence (i.e., domain name). The faculty member should also obtain Internet access through an Internet Service Provider (i.e., separate from the institution) and upload all contents to the web site from the faculty member's home. This means that no university resources are used in conjunction with the transportation, storage or delivery of these materials.

The issues pertaining to intellectual property rights, especially in the area of distance learning, are almost as unclear as the issues pertaining to copyright in this same area. In many ways these two distinct concerns present opposing sides of the very controversial question regarding "content ownership." From one-viewpoint (i.e., copyright) faculty members often want to minimize the ownership rights of copyrighted works by others under the concept of fair use. Conversely, faculty members also often want to maximize their ownership rights of content and limit the use of these materials by their institution or others.

Faculty Incentives

There are a number of factors that discourage faculty members (i.e., serve as disincentives) from developing distance learning courses. Some of these factors have already been discussed in this chapter. Nonetheless, given the number of distance learning courses being developed by faculty members throughout the world, some incentives must exist for encouraging faculty members to take on these time intensive commitments. Williams and Peters (1997) indicated that faculty incentives could be organized into three areas:

> administrative and support benefits, instructional benefits, and individual benefits. The administrative benefits include efficiency of time, scheduling benefits, distributive assignments, ease of documentation of student participation, and faculty reflection. The instructional benefits include allowing students more time to assimilate and reflect on the information, more creative classroom activities, a better environment to accommodate flexibility in learning styles, and more authentic learning environments. The individual benefits include increased exposure and collaborative opportunities. (p. 109)

Other incentives not addressed by Williams and Peters deal with additional compensation of faculty members for involvement in the design and delivery of distance learning courses.

Schifter (2000) reported on the results of a survey that investigated faculty compensation policies concerning distance learning. The survey focused on faculty compensation in two areas (a) course development and (b) course delivery.

In the area of course development, Schifter (2000) noted that a majority of the respondents (N = 212) reported that institutions "often" or "sometimes" provided the following types of compensation for faculty members while developing a course:

- Faculty release time (69%)
- Faculty overload pay (55%)
- Computer equipment purchased (70%)
- Software purchased (84%)
- Internet Service Provider cost covered (55%)
- Graduate or Teaching Assistants (53%)

Also in the area of course development, Schifter (2000) observed that a majority of the respondents reported that the institutions "often" or "sometimes" provided the following types of special funding opportunities for faculty members who develop distance learning courses:

- Faculty travel (75%)
- National conference fees (74%)

Findings from this survey show that institutions provide various forms of compensation for faculty members who develop distance learning courses. If policies are not in place on a particular campus, the above items may provide necessary background for faculty members when discussing distance learning course development with campus administrators.

Schifter (2000) also reported on faculty compensation in the area of course delivery. Schifter pointed out that a majority of the respondents stated that institutions "often" or "sometimes" provided the following types of compensation for faculty members while teaching a course.

- Faculty release time (59%)
- Faculty overload pay (61%)
- Computer equipment purchased (66%)
- Software purchased (78%)

Additionally, in the area of course delivery, Schifter (2000) noted that a majority of the respondents reported that the institutions "often" or "sometimes" provided the following types of special funding opportunities for faculty members who deliver distance learning courses:

- Faculty travel (65%)
- National conference fees (61%)

Clearly, based on this survey, it seems that institutions provide various forms of compensation for faculty members who deliver distance learning courses. If policies are not in place on a particular campus, the above items may provide solid groundwork for faculty members to use when discussing distance learning course delivery with campus administrators.

It is reassuring to know that many campus administrators understand and appreciate the extra time and effort that must be put forth by a faculty member in developing and delivering a "high quality" distance learning course. A factor to consider is that if a faculty member receives extra compensation for course development and/or delivery from the institution, the compensation may make it difficult for this faculty member to claim ownership of the materials derived from the distance learning course. This means a faculty member may need to weigh the current incentives against possible future sales of materials related to the course.

Along with issues related to compensation for the development and delivery of distance learning courses is the impact of these efforts on the tenure and promotion processes. According to Fraser (1999), distance education course development and delivery were "not considered professional activities that are traditionally evaluated for promotion and tenure" (p. 78). A report by the American Council on Education (2000) stated the importance of the need to "clarify how the authorship of distance education courses will affect promotion and tenure."

The findings reported by Fraser (1999) and the concerns raised by the American Council on Education (2000) are not true at all institutions of higher education. For example, a policy concerning Technology-Mediated Instruction (i.e., 17.02.02) was adopted by the Texas A&M University System (TAMUS) during April 2000. This policy attempts to clarify the role of distance learning within the TAMUS. First, this TAMUS policy defined Technology-Mediated Instruction as "instructional activities that use technological innovation in the development and delivery of course content to students whether in a traditional setting or through distance education." Second, the TAMUS policy stated:

> To encourage Technology-Mediated Instruction the System components may develop incentives such as: release time from other duties; training and development in the use of new technologies, techniques or fields of study; positive effects on merit salary increases; and promotion/tenure decisions resulting from excellence in performance.

This statement by the TAMUS clearly suggests that the development and delivery of distance learning courses may count toward promotion and tenure. Therefore, it appears that some institutions are beginning to grasp the importance of distance learning.

Timeline for Preparing a Course

Knowing exactly when and where to begin can be the most difficult step in planning a distance learning course. Whenever and wherever a faculty member chooses to begin, Herring and Smaldino (1998) provided the following recommendation: "Prepare, prepare, prepare, and prepare some more" (p. 19). We the authors, like Herring and Smaldino, cannot stress enough the significance of proper preparation in the development and delivery of distance learning courses.

The planning process should begin approximately 12 months before the advent of the semester or term of study in which the distance learning course will be offered and continue through the beginning of the course. Just as in face-to-face courses, faculty members will make adjustments in the course. The focus of this discussion concerns the preparation that needs to occur prior to the course.

Twelve Months Prior

Approximately one year prior to beginning the delivery of a distance learning course a faculty member should initiate the planning process. Many of the early tasks are global in nature and involve the faculty member's investigation of the campus environment to determine the feasibility of offering a counselor preparation course using distance learning technologies. Specifically, a faculty member should complete several tasks during the first month of planning including the following:

- Investigate support services and resources available on campus. As discussed previously in this chapter, some of the most important issues that a faculty member may want to consider prior to making the commitment to conduct a distance learning course could include: (a) availability of faculty training, (b) availability of course development support, (c) availability of course delivery support, and (d) availability of library services to support distance learning.

- Review campus policies concerning copyright and intellectual property rights. As previously discussed, the institution's position on these issues might create either a very positive or negative environment for designing a distance learning course.

- Determine if any incentive or compensation programs are available for faculty members teaching distance learning courses. The existence or lack of existence of these programs can provide some indication as to the level of importance assigned to distance learning by the campus administration.

- Ascertain the types of distance learning technologies available on campus. Chapter 3 discussed several different distance learning technologies. A faculty member needs to find out what is currently available on campus and what additional technologies will be added within the next year. The campus distance learning staff may be an excellent resource for this information.

- Address needs of the counselor preparation program for distance learning courses. This usually involves talking with the academic department chair and colleagues concerning the programmatic needs for delivering the course using distance learning technologies. As discussed in Chapter 1, distance learning is used primarily to meet the needs of current students and/or to attract new students.

- Begin talking with faculty members (i.e., at own institution or other institutions) who have experience in teaching distance learning courses using various types of technologies. If other counselor education faculty members at the institution have not developed distance learning courses, then the faculty member should look to two groups for information. The first group to look to is faculty members from other disciplines within their own institution who have experiences using the current distance learning technologies. These individuals may not understand counselor preparation, but they can explain how they use the available technologies in the teaching and learning process. Second, faculty members should talk with counselor educators at other institutions who have experience teaching counseling courses with distance learning technologies. The technologies they have used may be different than the technologies available on the faculty member's campus, but these faculty members can explain how they use various distance learning technologies in the teaching and learning process.

Thus, the focus during the first month of preparation for a faculty member's distance learning course should involve assessing the environment to determine if the conditions are right for developing a distance learning course in the counselor preparation program. A number of factors play into this decision and need to be evaluated carefully by the faculty member before proceeding in the planning process.

Eleven Months Prior

If the environment appears favorable, then it is time for the faculty member to begin narrowing the focus of the planning to a specific course within the counselor preparation program. Specifically, a faculty member should complete several tasks during the second month of the planning process. These tasks include:

- Conduct an initial meeting with the faculty member's academic department chair and/or distance learning staff. Each campus will handle issues related to distance learning in different ways. A faculty member must early on understand the role that both the academic department chair and the distance learning staff will perform in the course development/delivery process. To illustrate this point, in some institutions, faculty members receive partial release time from their teaching assignments and report to the distance learning staff for all issues related to the course. Other institutions' administration of a distance learning course occurs through the same academic channels as in a face-to-face course with the distance learning staff providing a support role for the faculty member. This initial meeting will be the first of many meetings with the administrator who is responsible for the distance learning course.

Three additional issues that need to be discussed early in the process with the academic department chair and/or distance learning staff focus on (a) intellectual property right issues, (b) faculty incentive programs for distance learning course development, and (c) identification of course development support staff resources (e.g., course development specialists, graduate teaching assistants, student workers).

If the faculty member had previously investigated the intellectual property right policies and faculty incentive programs, he or she should have a good understanding of these issues prior to the meeting. However, it is essential that the administrator responsible for the distance learning course as well as the faculty member possess a common and clear understanding of these issues at the beginning of the course planning process.

The faculty member needs to query and discuss with the administrator the type of course development support staff resources available. As previously noted, the level of support can vary greatly from campus to campus. At some institutions, the campus staff develops the entire course content for the faculty member with the faculty member serving as the content expert. Yet at other institutions, the campus staff provides no support to the faculty member in the course development process. When this occurs, the faculty member is responsible for converting all of the materials for his or her own course.

Finally, the faculty member should discuss and clarify the level of course delivery support (e.g., proctor for interactive television courses, other technical support staff for online courses) that he or she can expect to receive during the distance learning course.

- Finalize the selection of the counseling course to be converted to a distance learning format based on program needs and/or other criteria. After talking with the academic department chair and colleagues, the faculty member should focus on developing a distance learning course that meets a program need. Also, the faculty member may want to consider which course he or she has the most experience teaching. Whatever criteria are used to make this decision, the time to select a particular course and begin focusing all efforts on this course needs to occur early in the planning process.

- Identify specific course goals using the "Five Types of Learning Outcomes" taxonomy as discussed in Chapter 4. These goals should be the same goals as if the course were being taught face-to-face.

- Assess preferred teaching styles. The purpose of this process is to assist in identifying the distance learning technologies that might best fit with individual preferences. This selection process will be discussed in Chapter 7.

- Select distance learning technologies to be used in the course based on (a) available distance learning technologies, (b) learning outcomes, and (c) preferred teaching styles. The purpose of this process is to assist the faculty member in selecting the technologies that "best fit" the particular course. This selection process will be discussed in the next chapter.
- Complete a macro-level instructional design model (as discussed in Chapter 4). This document will provide a "blueprint" for the course.
- Develop a timeline for preparing the distance learning course.
- Continue talking with colleagues who have experience in teaching distance learning courses using various types of technologies. If possible and appropriate, the faculty member should try to participate in a colleague's course for a week or two.

This eleventh month of the planning process focuses on narrowing the decision to a specific course and a specific distance learning technology or set of technologies. At the end of this month, the faculty member should have a general idea of the direction of the distance learning course.

Ten Months Prior

At this point, the faculty member needs to change the focus from a global view of the course to a more pragmatic view. During this month, the faculty member should:

- Meet with the academic department chair and/or distance learning staff to review the (a) macro-level instructional design model, (b) timeline, (c) distance learning delivery mode(s), and (d) course development support staff resources. Reviewing these items with the appropriate course administrator should provide an opportunity to receive feedback and become aware of any unknown obstacles (e.g., the videoconferencing system is being removed from the campus).
- Identify opportunities for gaining an understanding of the technologies selected for use in the distance learning course.
- Begin breaking the course into units/topics using a micro-level instructional design model (as discussed in Chapter 4). This model should provide the detail that the course development staff will need to assist a faculty member in developing materials for the course.
- Continue dialogue with colleagues. The discussion should now be limited to talking only with colleagues who are using the same types of technologies that have been selected for use in the course.

This month begins the process of shaping the course from an idea into a manageable set of tasks. The course development support staff may perform many of these tasks. The faculty member will be ultimately responsible for coordinating and overseeing this development process.

Nine Months Prior

The focus for this month is twofold. First is the coordination of library resources. Second, is to begin the process of converting course materials for use in a distance learning environment. Specific tasks to be completed include:

- Meet with campus library staff concerning student access. As discussed earlier in this chapter, providing remote students access to library resources is one of the biggest challenges for a distance learning faculty member.
- Complete micro-level instructional design models. This process should have been started during the previous month and should be completed this month.
- Organize the course development support staff to begin converting course materials. The micro-level instructional design documents should provide the course development staff with the information they need to begin this conversion process.
- Continue discussions with colleagues who are using the same types of technologies that have been selected for use in this course. This dialogue should help the faculty member better understand how the distance learning technologies work within the teaching and learning process. Discourse with these faculty members should be ongoing for the next several months.

By the end of this month, the focus has changed from planning to doing. The course development staff ought to be starting the process of converting materials.

Eight Months Prior

The focus of this month is to finalize scheduling of the distance learning course. Also this month, the faculty member should begin using some of the materials that have been converted by the course development staff in a face-to-face course. Activities to be completed during this month entail:

- Finalize course scheduling with the academic department chair and/or distance learning staff. If distance learning is relatively new on the faculty member's campus, it may be important to make sure that all of the appropriate paper work related to the course is completed.
- Begin integrating converted materials into present face-to-face courses (e.g., presentation graphics for an interactive television course, web pages for an online course). This process allows the faculty member to become more comfortable using the technologies.
- Receive feedback from current students about the converted materials. However, in order to receive "honest" feedback from students it may be helpful to provide them with a non-threatening method of providing this feedback (e.g., anonymous feedback forms).

By the end of this month, a faculty member should begin having a clear sense of course content within the distance learning environment.

Seven Months Prior

After receiving the initial feedback concerning the converted materials, the faculty member's emphasis during this month must focus on integrating specific distance learning activities into face-to-face courses. Also, this month is a good time to follow-up with the campus library staff.

- Finalize student access to library resources with the campus library staff. At this point in the process, the faculty member should have a very clear understanding of the exact library needs of the remote students. This could include access to reserve readings, videotapes, etc. It is important that the faculty member and the library staff have an agreement regarding how remote students will access these resources.

- Continue to integrate converted materials into present face-to-face courses and then begin integrating specific types of distance learning activities in present face-to-face courses. To illustrate this point, activities that are going to be used in an online course could include "chat" and "bulletin boards." These technologies could be incorporated into a faculty member's face-to-face course. Also, activities that are going to be used in an interactive television course might include structured small group experiences. These activities could be incorporated into a faculty member's face-to-face course. Specific types of distance learning activities for both online and interactive television courses will be discussed in greater detail in Chapters 8 and 9.

- Receive feedback from current students about the converted materials and solicit feedback concerning the learning activities. This feedback will assist the faculty member in adapting these activities to meet the needs of the course.

Six Months Prior

As discussed in Chapter 4, part of the course design process involves evaluating the learning process. At this point, the faculty member needs to consider this evaluation process and continue integrating distance learning materials/activities into face-to-face courses. Activities to be completed this month are:

- Develop protocols for evaluating the process. Many campus distance learning programs have already developed distance learning course evaluation instruments. It will be important for the faculty member to determine if these tools are appropriate for his or her counseling course. If not, the faculty member will need to develop an evaluation tool that will appropriately assess the learning process for his or her particular course.

- Continue integrating converted materials and specific types of distance learning activities into present face-to-face courses. Ideally, the faculty member would have the opportunity to pilot test all of the converted materials and most of the specific types of distance learning activities prior to beginning the distance course. Therefore, this process should continue over the next several months.

- Continue to solicit feedback from current students about converted materials and learning activities.

Five Months Prior

Up until this point, the faculty member has placed a great deal of time and effort into the planning of this distance learning course. Therefore, in order to help ensure that students actually enroll in the course, the faculty member should consider publicizing the course. Specific issues to be addressed this month call for:

- Work with the academic department chair and/or distance learning staff to publicize the course to current students and potential students.
- Develop a web site for the course. The faculty member should work with the course development support staff to establish a web site for the course.
- Continue integrating converted materials and specific types of distance learning activities into present face-to-face courses. Also maintain the process of receiving feedback from current students about converted materials and learning activities.

Four Months Prior

The course development phase is beginning to wind down. Earlier the faculty member had finalized student access to library resources. However, given the importance of access to library resources for many courses, now would be a good time to "double check" with the library staff concerning access to the particular resources for this course. Also, at this point, most of the course content materials should be converted and the focus must shift to course support materials. Identifiable tasks to be completed during this month include:

- Verify agreement with the library staff pertaining to remote student access to particular resources for this distance learning course.
- Work with the course development staff should shift to converting other course support materials (e.g., syllabus, bulletin board assignments, course orientation materials).

Three Months Prior

As discussed earlier in this chapter, the institution will provide various levels of course delivery support. During this month the faculty member should clarify the level of support that will be provided for his or her distance learning course. Activities to be accomplished this month entail:

- Meet with the academic department chair and/or distance learning staff. Even though the faculty member addressed this issue earlier, at this point it is imperative that the faculty member verify the exact nature of support that he or she can expect to receive during the delivery of the distance learning course.
- Finalize conversion of course content materials. With a full set of converted content materials as well as feedback from students regarding these materials and distance learning activities, the faculty member should feel prepared to deliver the content of the distance learning course.

Two Months Prior

The focus this month shifts from course development to course delivery. Thus, salient issues to address this month comprise:

- Meet with course delivery support personnel to develop a common understanding of their role in the course delivery process. These staff members have the potential to be an important resource for a faculty member when delivering a distance learning course.
- Complete the material conversion process with the course development staff. This would include final conversion of all course support materials. Also, this may include the

need to revise content materials that had been converted early in the process. To illustrate, materials previously converted concerning the *DSM-IV* would need to be changed to reflect the *DSM-IV-TR*.

- Update the course web site. This could include adding the syllabus, course outline, and related materials to the site.

One Month Prior

The focus this month continues to be on preparing for course delivery. Hence, significant issues to address include:

- Complete a simulated class meeting with course delivery support personnel (e.g., make connection to remote location and use equipment in an interactive television course, use bulletin board and chat features in an online course). This will provide the faculty member with an opportunity to practice prior to the beginning of the course.
- Verify that the course development team has completed revisions of all course-related materials. At this point, these materials should be turned over to the faculty member.

One and Two Weeks Prior

The tasks at this point involve (a) making a final verification of student access to library resources, and (b) addressing any unanticipated problems that may have occurred, and (c) if needed, forwarding materials to remote locations. With proper planning the number of unanticipated problems will be reduced, but even the best planning efforts will never totally eliminate all unanticipated problems. Also, if materials have been forwarded to a remote location, it is important to verify that they have arrived at that location. A Course Planning Checklist that summarizes these steps is included at the end of this chapter.

Conclusion

This chapter covered issues that a faculty member should consider prior to committing to teach a distance learning course. Further, the chapter provided a timeline to aid faculty members in developing a distance learning course. For additional information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/06

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Course Planning Checklist

Course Title: ______________________________ **Semester to be delivered** ____________________

12 Months Prior to the Beginning of the Course	Completed
Investigate support services and resources available on campus.	
Investigate campus policies concerning copyright and intellectual property rights.	
Investigate campus incentive/compensation programs for faculty teaching distance learning courses.	
Identify type of distance learning technologies available on campus.	
Identify program needs for distance learning courses.	
Talk with colleagues who have experience in teaching distance learning courses using various types of technologies.	
Other:	
11 Months Prior to the Beginning of the Course	**Completed**
Meet with academic department chair and/or distance learning staff concerning (a) intellectual property right issues, (b) faculty incentive programs for distance learning course development, (c) identification of course development support staff resources, and (d) identification of course delivery support staff resources.	
Identify the first course to be converted to a distance learning format based on program needs and/or other criteria.	
Identify course goals using the "Five Types of Learning Outcomes" taxonomy.	
Identify preferred teaching style(s).	
Select distance learning technologies to be used in the course based on (a) available distance learning technologies, (b) learning outcomes, and (c) preferred teaching style(s).	
Complete a macro-level instructional design model for the course as well as develop a timeline for preparing the distance learning course.	
Continue talking with colleagues who have experience in teaching distance learning courses using various types of technologies.	
Other:	

Course Planning Checklist

[Continued]

10 Months Prior to the Beginning of the Course	Completed
Meet with academic department chair and/or distance learning staff to review (a) macro-level instructional design model, (b) timeline, (c) distance learning delivery mode(s), and (d) course development support staff resources.	
Identify faculty development opportunities for gaining an understanding of the needed distance learning technologies to be used in the course.	
Begin breaking the course into units/topics using the micro-level instructional design model.	
Continue talking with colleagues who have experience in teaching distance learning courses using the types of technologies that have been selected for use in the course.	
Other:	
9 Months Prior to the Beginning of the Course	**Complete**
Meet with library staff concerning student access to library resources.	
Complete micro-level instructional design models.	
Organize the course development support staff and begin converting course materials.	
Continue dialogue with colleagues who have experience in teaching distance learning courses using the types of technologies that have been selected for use in the course.	
Other:	
8 Months Prior to the Beginning of the Course	**Complete**
Finalize course scheduling with academic department chair and/or distance learning staff.	
Begin integrating converted materials into present face-to-face courses.	
Receive feedback from current students about converted materials.	
Continue to work with the course development support staff on converting course materials.	
Continue talking with colleagues who have experience in teaching distance learning courses using the types of technologies that have been selected for use in this course.	
Other:	

Course Planning Checklist

[Continued]

7 Months Prior to the Beginning of the Course	Completed
Finalize student access to library resources.	
Continue integrating converted materials into present face-to-face courses.	
Begin integrating specific types of distance learning activities into present face-to-face courses.	
Receive feedback from current students about converted materials and learning activities.	
Continue the interchange with colleagues who have experience in teaching distance learning courses using the types of technologies that have been selected for use in this course.	
Other:	
6 Months Prior to the Beginning of the Course	**Completed**
Continue integrating converted materials and specific types of distance learning activities into present face-to-face courses.	
Receive feedback from current students about converted materials and learning activities.	
Develop protocols for evaluating the learning process.	
Continue the dialogue with colleagues who have experience in teaching distance learning courses using the types of technologies that have been selected for use in this course.	
Other:	
5 Months Prior to the Beginning of the Course	**Completed**
Work with academic department chair and/or distance learning staff to publicize the course to current students and potential students.	
Work with the course development support staff to establish a web site for the course.	
Continue integrating converted materials and specific types of distance learning activities into present face-to-face courses.	
Receive feedback from current students about converted materials and learning activities.	
Continue talking with colleagues that have experience in teaching distance learning courses using the types of technologies that have been selected for use in the course.	
Other:	

Course Planning Checklist

[Continued]

4 Months Prior to the Beginning of the Course	Completed
Verify student access to library resources.	
Work with course development staff on other course support materials.	
Continue integrating converted materials and specific types of distance learning activities into present face-to-face courses.	
Receive feedback from current students about converted materials and learning activities.	
Other:	
Other:	
3 Months Prior to the Beginning of the Course	**Completed**
Verify course delivery support protocols with academic department chair and/or distance learning staff.	
Finalize conversion of course materials.	
Other:	
Other:	
2 Months Prior to the Beginning of the Course	**Completed**
Meet with course delivery support personnel.	
Finalize conversion of other course support materials.	
As needed, update course materials.	
Update course web site.	
Other:	
Other:	

Course Planning Checklist

[Continued]

1 Month Prior to the Beginning of the Course	**Completed**
Complete simulated class meeting with course delivery support personnel	
Finalize conversion of all course materials.	
Other:	
2 Weeks Prior to the Beginning of the Course	**Completed**
As needed, forward materials to remote locations.	
Other:	
1 Week Prior to the Beginning of the Course	**Completed**
Verify receipt of forwarded materials to remote locations.	
Verify student access to library resources.	
Other:	
Notes:	

Chapter Seven
Selecting Delivery Methodologies

In Chapter 4, readers were introduced to the macro-level instructional design model. The third component of this model concerned the selection of instructional delivery system(s). This chapter presents a technique to assist faculty members in this selection process.

According to Moore (1996), "Each medium [distance learning technology] has qualities that are appropriate for particular types of messages . . . the art of effective instructional design in distance education depends largely on making the right selection among media for each particular content" (p. 1). Conversely, Martin, Moskal, Foshee, and Morse (1997) suggested that the medium is not an important consideration. Martin et al. explicitly stated, "The most important aspect of DE [distance education] courses is not the delivery technology, but rather, the instruction. The delivery system is just the pipeline for presenting the instruction. Good instruction can be designed for any delivery system" (p. 20). The authors incorporate the divergent positions of both Moore and Martin et al.

Specifically, the authors suggest that Moore (1996) is accurate in that selecting the correct medium is important because certain distance learning technologies tend to lend themselves to the delivery of certain types of content better than others. However, the authors believe Martin et al. (1997) are also correct in that selecting the correct medium alone is not enough. What is important is designing high quality instruction for the selected distance learning technologies. Techniques for designing high quality instruction in interactive television and online courses will be presented in Chapters 8 and 9.

Theoretically, it would be possible to teach any content using any instructional delivery system (i.e., distance learning technology or face-to-face). To illustrate this point, it would be possible to place 500 students in a large auditorium and lecture on the various aspects of group counseling. Realistically, this would not probably be the most effective instructional delivery system for students to learn about group counseling or to demonstrate group counseling skills. This same type of analogy can be made concerning distance learning courses. Each of the distance learning delivery systems tends to favor certain types of content and certain teaching styles. Thus, the focus of this chapter is to assist a faculty member in selecting the best technology or combination of technologies for delivery of a distance learning counseling course.

Still, prior to making the decision regarding technology selection, a faculty member needs to consider three factors: (a) learner readiness to use distance learning technologies, (b) students' knowledge, skills, and abilities, and (c) the faculty member's preferred teaching styles. Much of this information should be available to the faculty member after completing the first two components of the macro-level instructional design model (i.e., Analysis of the Learning Environment and Establishment of Course Goals).

Considering Learner Readiness

A consideration for the faculty member is the level of the technical skills of students in using various distance learning technologies. The students' experiences and comfort levels with the various distance learning technologies should be an important consideration for the faculty member in guiding the technology selection process. The faculty member should complete this analysis of learner readiness during the "Analysis of the Learning Environment" step in the macro-level instructional design process.

To illustrate this point, for students with no distance learning experiences, the faculty member may want to limit the number of distance learning technologies used in a single course. Limiting the course to the use of one distance learning technology reduces the need for the student to gain competence in the use of multiple distance learning technologies. This need to limit the number of technologies used in a course would be especially important if the students possessed limited experiences in using any type of technology.

Identifying Knowledge, Skills, and Abilities

The next step in the selection process for the faculty member is to identify the specific knowledge, skills, and abilities that students are expected to achieve during a particular course. The knowledge, skills, and abilities usually are described in terms of course goals. The faculty member should have developed course goals during the second step of the macro-level instructional design process.

As discussed in Chapter 4, one method of organizing course goals involves the use of the following taxonomy of learning outcomes that was proposed by Gagne, Briggs, and Wager (1992):

- Verbal Information
- Intellectual Skills
- Cognitive Strategies
- Motor Skills
- Attitudes

Organizing course goals into these five categories provides a faculty member with some notion of which types of learning outcomes are the most and least prevalent in the course. Another critical area that a faculty member must address related to course goals is identifying which of the course goals are the most important.

Just as in a face-to-face course, certain distance learning instructional delivery systems are more compatible than others for achieving specific types of goals. In selecting a distance learning technology or set of technologies, a faculty member will need to balance the number of important course goals in a specific area of the Gagne et al. (1992) taxonomy (e.g., cognitive strategies) with the areas of secondary importance to the learning outcomes. Ideally, the majority of the goals and the most important goals will fall into the same areas.

Identifying Preferred Teaching Styles

Each faculty member develops preferences for certain teaching styles or instructional strategies based on a number of factors. These factors may include (a) theoretical orientation toward the teaching and learning process, (b) prior experiences with various teaching styles, or (c) "it just feels right." It is important for a faculty member to understand his or her preferences because he or she may want to select distance learning technologies that fit this preferred style.

Technology-Enhanced Teaching Methods
(Jencius, 2000)

		Technology Methods						
		Email	Listserv	Newsgroup	Web-Based discussion	Presentation Software	Static Web Site	CD-ROM
		Asynchronous						
Traditional Teaching Methods	Lecture					*	*	*
	Written Assignment	*						
	Outside Reading	*1	*1	*1	*1		*	*
	Question & Answer	*	*	*	*			
	Panel Discussion		*2	*2	*2			
	Discussion Group		*2	*2	*2			
	Guest Lecturer					*3		*3
	Video Presentation						*4	*
	Demonstration							*

1. Although possible, this method would be a cumbersome method of distribution
2. Asynchronous nature of this format does not permit for immediate response from each member using this method
3. Enhanced by the inclusion of audio in the presentation
4. Video inclusion would require streaming capabilities

The Selection Matrix

The selection matrix to be presented in this chapter is based on the learning outcomes taxonomy proposed by Gagne et al. (1992). This selection matrix was first developed by the authors for a presentation at the Southern Association for Counselor Education and Supervision conference in October 1997.

In addition to this selection matrix based on learning outcomes, other authors have proposed selection matrixes based on instructional strategies. For example, the Pennsylvania State

Technology-Enhanced Teaching Methods
[Continued]

		Technology Methods				
		Text-Only Chat Room	Voice Chat Room	Text/Avatar Chat Room	Video Conferencing	Live Internet Cast
		- - - - - - - - - - Synchronous - - - - - - - - - -				
Traditional Teaching Methods	Lecture	*	*	*	*	*
	Written Assignment					
	Outside Reading					
	Question & Answer	*	*	*	*	*
	Panel Discussion	*	*	*	*	*
	Discussion Group	*	*	*	*	*
	Guest Lecturer	*	*	*	*	*
	Video Presentation				*1	*
	Demonstration				*	*

1. Although possible, this method would be a cumbersome method of distribution

[Technology-Enhanced Teaching Methods matrix used with permission of Dr. Marty Jencius]

University (1997) set forth a technology selection matrix based on both the instructional strategy and the level of technological sophistication (i.e., low tech to high tech). More recently, Jencius (2000) proposed a similar type of technology selection matrix based on preferred teaching methods. The Jencius matrix appears above and on the previous page.

The selection matrix proposed by the authors (presented on the next page) suggests that distance learning technology decisions

Selection Matrix Based on Learning Outcomes

Albrecht & Jones (2001)

		Learning Outcomes				
		Verbal Information	Intellectual Skills	Cognitive Strategies	Motor Skills	Attitudes
Distance Learning Technology	One-Way Audio	+	-	-	-	-
	Two-Way Audio	+	-	+	-	+
	One-Way Audio/Video	+	+	-	-	-
	Two-Way Audio / One-Way Video	+	+	+	-	+
	Two-Way Audio/Video	+	+	+	+	+
	Computer-Based CD-ROM	+	+	-	-	-
	Computer-Based - WWW Delivery	+	+	+	-	+

should be based primarily on anticipated learning outcomes (i.e., course goals). The list of technologies included in this matrix are similar to the descriptions of distance learning technologies used by the National Center for Educational Statistics in compiling data for the report *Distance Education at Postsecondary Education Institutions: 1997-98* (U.S. Department of Education, 1999a).

To use this matrix, a faculty member would identify the type of learning outcomes (using the Gagne et al. [1992] taxonomy) that are most prevalent and/or most important in the course along the top of the matrix. After locating the appropriate column, the faculty member would note the distance learning technologies that are the most compatible with this type of learning outcome. The most compatible technologies are identified with a "+" symbol. The faculty member would complete this same process for the second most prevalent and/or second most important type of learning outcome. From this process a viable pattern should emerge that will assist the faculty member in identifying the distance learning technology or technologies that would be most appropriate for the course.

The following example illustrates how this matrix could be used in selecting a distance learning technology. If the majority of the goals for a course focused in the area of "verbal information," then any of the technologies could be appropriate. However, if the most important goals in this same course were related to "motor skills," then the preferred distance learning delivery system for this course would be "Two-Way Audio/Video."

Using a Hybrid Approach

The "Selection Matrix" provides one method of identifying various technologies that may be used by a faculty member in a distance learning course. However, at times, a faculty member will feel that the currently available technologies on his or her campus may not be effective delivery systems for achieving certain course goals. In these situations, a faculty member may want to consider the "hybrid" approach to teaching a distance learning course.

The hybrid approach suggests that a faculty member incorporates a face-to-face component into a distance learning course. This approach is recommended when the benefits of a face-to-face component outweigh the benefits of using only distance learning technologies.

As indicated earlier in this book, many students are enrolled in distance learning courses because they are time-bound or place-bound. Therefore, a travel requirement to campus for a face-to-face component may keep some students from enrolling in these courses. In other cases, time-bound or place-bound students may be able to make arrangements to attend a small number (e.g., 1 to 4) of on-campus face-to-face meetings throughout the duration of the course. If a face-to-face component is required in a course, it is important for students to understand these requirements (i.e., dates and times) before enrolling in the course. Three of the most common situations where some faculty members may feel that the benefits of face-to-face meetings outweigh the benefits of distance learning technologies are:

- Faculty members may require students in distance learning courses to attend a face-to-face orientation at the beginning of the semester. The benefits of bringing students to campus for orientation need to be weighed against the benefits of using distance learning technologies to conduct this orientation.
- Faculty members may require students in distance learning courses to attend face-to-face examinations (e.g., midterm and final). The benefits of bringing students to campus for examinations need to be weighed against the benefits of using other techniques (e.g., proctors) for ensuring that examinations are administered appropriately.
- Faculty members may require students in distance learning courses to attend monthly face-to-face meetings (e.g., first Saturday of every month) focusing on certain skill development components of the course. The benefits of bringing students to campus for skill development need to be weighed against the benefits of using other techniques (e.g., videotapes, interactive television) for skill development.

There may be other circumstances where faculty members feel that face-to-face meetings are necessary components of a distance learning course.

Conclusion

In order to select the most appropriate delivery systems for a distance learning course, a faculty member should accomplish several tasks. First, the faculty member must conduct a complete analysis of (a) learner readiness to use distance learning technologies, (b) students' knowledge, skills, and abilities, and (c) the faculty member's preferred teaching style. Second, the faculty member should use this information in conjunction with the "Selection

Matrix" to identify the technology or technologies to be used in a distance learning course. Finally, the faculty member needs to weigh the benefits of including a face-to-face component in the course. After finishing these tasks, the faculty member is ready to complete the remainder of the macro-level instructional design model.

When used in conjunction with the information presented in this chapter, the following "Selection Matrix Checklist" should assist a faculty member in the selection of instructional delivery system(s). For additional information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/07

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Selection Matrix Checklist

Course Title: ______________________________

Learner Readiness	**High**	**Low**	**Comments**
Prior experiences in distance learning courses			
Prior experiences with technology			
Preferred Instructional Styles [Jencius (2000) Taxonomy]	**Primary**	**Secondary**	**Comments**
Lecture			
Written Assignment			
Outside Reading			
Question & Answer			
Panel Discussion			
Discussion Group			
Guest Lecturer			
Video Presentation			
Demonstration			

Selection Matrix Checklist

[Continued]

Course Goals [Gagne et al. (1992) Taxonomy]	Prevalence	Importance	Comments
Verbal Information			
Intellectual Skills			
Cognitive Strategies			
Motor Skills			
Attitudes			
Face-to-Face Component [Hybrid Approach]	**Yes**	**No**	**Comments**
Necessary for Orientation			
Necessary for Examinations			
Necessary for Skill Development Components			
Other:			
	Instructional Delivery System(s)		
Primary			
Secondary			
Tertiary			

PART III

COUNSELOR PREPARATION AND DISTANCE LEARNING TECHNOLOGIES

8 Interactive Television Courses
9 Online Courses

Chapter Eight

Interactive Television Courses

The U.S. Department of Education (1999a) reported that during the 1997-1998 academic year "two-way video with two-way audio" was the second most popular distance learning delivery technology being used by 54% of higher education institutions. Given the prevalence of this type of technology on campuses, this chapter will focus on assisting counselor education faculty members in preparing a course to be taught using interactive television (i.e., Videoconferencing or Two-way Audio/Video).

Administrative Considerations

Some of the common administrative issues that a faculty member needs to consider when designing a distance learning course were addressed in Chapter 6. In addition to these general issues, teaching in an interactive television environment provides some administrative considerations that are unique. These issues encompass four areas: (a) factors specific to using the interactive television classroom, (b) matters unique to the conversion of course materials for use in an interactive television course, (c) points related to faculty teaching load when students are present at the remote site(s), and (d) items concerning the use of site facilitators.

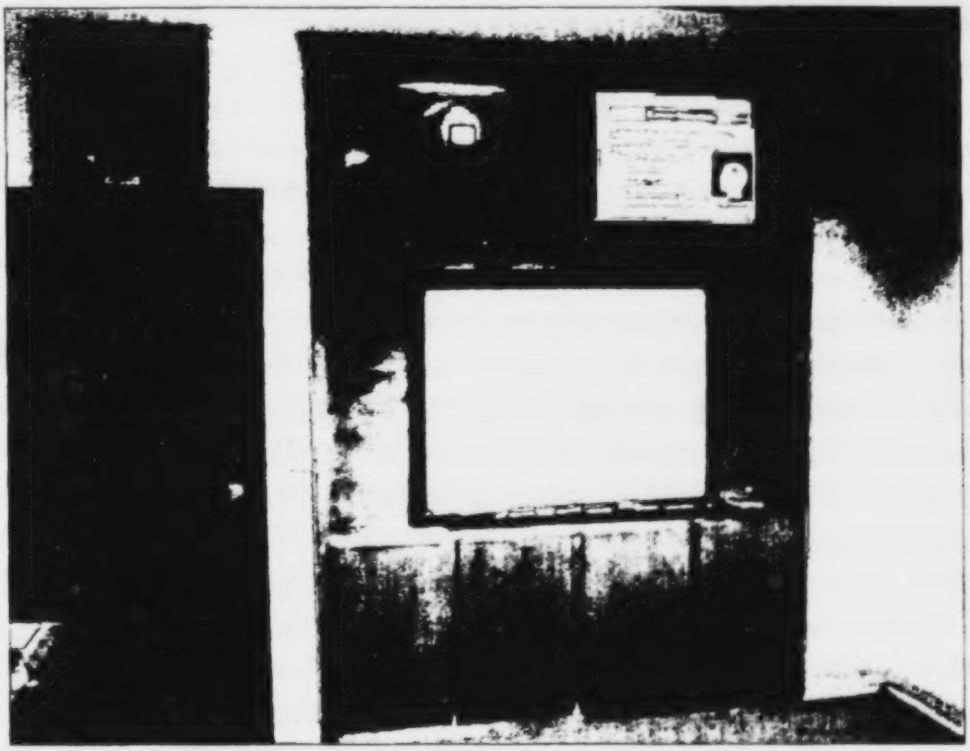
The Interactive Television Classroom

In many ways, the interactive television classroom may not look much different than a "high tech" traditional classroom. Each interactive classroom will be unique, but most will provide some or all of the following features: (a) cameras, (b) television monitors, (c) microphones, (d) videocassette recorder, (e) computer, (f) facsimile machine, and/or (g) telephone. Friscia (1998) noted that it is important for a faculty member to "become familiar and comfortable with teleclassroom [videoconferencing] tools" (p. 504). It is imperative for a faculty member to understand how the various pieces of technology in his or her interactive television classroom operate.

Cameras: Most classrooms will have at least three cameras. One camera will be in the back of the classroom to project the instructor's image. The second camera will be in the front of the classroom to project the images of the students at the local site. The third camera is called a "document camera". According to Lebanon Community School Corporation (1996), the purpose of the document camera is threefold:

1. The document camera is used in place of an overhead or opaque projector.
2. It has both overhead and base lighting. You can use it to show print materials, maps, manipulatives, and slides.
3. The camera can swivel up, so that it can be used as an additional camera for close-up shots of your students.

Additionally, a computer that allows a faculty member to project the contents of the computer screen can be connected to most document cameras.



In many situations, videoconferencing systems are designed in such a way that the students at the remote location(s) are able to view only one of the camera images from the local site. A related consideration is that it is often the responsibility of the instructor to use the camera control panel to select the camera image that will be transmitted to the students at the remote site(s). To illustrate, as part of the distance learning experience both of the authors have placed items on the document camera for students to review, but did not remember to switch the camera controls to the document camera. Therefore, the students at the remote site were unable to see the item. Clearly, the instructor needs to remain aware of which camera image is being viewed by students at the remote site(s).

Television Monitors: Most interactive classrooms will include two television monitors in the front of the classroom. One of these monitors will provide images from the remote site(s) and the other monitor will provide images from the local site. The first monitor allows students to "see" the remote classroom(s) (usually only one remote classroom at a time). The second monitor allows students to "see" the image that is being transmitted to the other location(s) from that classroom.

Many classrooms provide monitors, either in the back of the classroom or on the instructor's podium, that allow the instructor to view images of the remote and local sites. The authors have found that being able to view the remote image from the instructor's podium is extremely important for observing demonstrations by students at the remote location(s).

Microphones: Doane and Fuchs (1998) contended, "Poor audio can cause listener fatigue in your distance learning classroom" (p. 117). Also, Richardson (1998) noted that in many interactive television classrooms "careful attention is paid to the video side – camera locations, position of the lighting, ability to view monitors, etc. – but little attention is paid to the audio, which carries the bulk of your message" (p. 301).

In most interactive television classrooms, microphones will be located in the classroom to "pick-up" the voices of both the instructor and students. Normally, the instructor's microphone will be located on the instructor's podium. Thus, a faculty member needs to be careful not to walk too far way from the podium or to turn his or her back in such a way that students will not be able to hear the instructor's comments. Some classroom set-ups provide faculty members with "wireless" lapel (lavaliere) microphones which allow them to walk around the classroom.

Student microphones usually are located on the table in front of the student or they hang from the ceiling above the student. One of the most difficult issues a faculty member faces is reminding students at all locations to "speak up" in order to allow everyone to be able to hear their comments.

Moreover, some table microphones require students to push a button on the front panel of the microphone to activate it. In this situation, the faculty member must remind the students to "push the button."

Videocassette Recorder: Frequently classrooms include a videocassette recorder. In an interactive television classroom a VCR can be used:

- To play a tape for viewing
- To record site participants (local or remote)
- To record instruction for library backup and review
- As a teaching strategy, use VCR recordings to
  present demonstration material,
  present opportunity for interactive questions and answers
  add humor, and
  provide students with a "listening break". (Williams, Paprock, & Covington, 1999, p. 98)

More importantly, the faculty member could videotape counseling demonstrations that are being conducted by students at either the local or the remote sites(s). Using this technique these videotapes could then be critiqued at a later time.

Computer: Many interactive television classrooms contain a computer at the instructor's podium. In most situations, this computer will be connected to the document camera and allow a faculty member to display the screen contents to students at all locations. As will be discussed later in this chapter, the authors recommend the use of presentation graphics software to support content delivery in the classroom. Further, this computer will often be attached to the computer network and allow the faculty member to access Internet resources and integrate these resources into the course.

Facsimile Machine: A fax machine is standard equipment in many interactive television classrooms. The availability of this item allows a faculty member to send printed documents to the remote classroom(s) (e.g., handouts) and receive documents from the remote classroom(s) (e.g., homework). Gebhardt (1999) noted the importance of "the availability of fax machines at all sites because, I know from experience, it is an invaluable aid in getting materials to and from students at the last minute" (p. 202).

Telephone: A faculty member's ready access to a telephone can be important to the success of an interactive television course. During an interactive television course, it is not uncommon for a faculty member to experience "technical difficulties." The availability of a telephone allows the faculty member to contact the technical support staff and the students at the remote classroom(s). Further, if the telephone systems in the local and remote classroom(s) possess "speaker phone" capabilities, it would be possible for the instructor to use this equipment to audio conference with the students while "technical difficulties" are being corrected. Finally, the presence of a telephone enhances the opportunity for the faculty member to talk with students from the remote classroom(s) either before or after class with a greater feeling of privacy.

Few of these pieces of technology are unique to the interactive television classroom. However, if the faculty member, and to some degree the students, gain competence in the use of each of these items as instructional tools, the interactive television course can become a higher quality experience for both the faculty member and the students.

Redesigning Course Materials

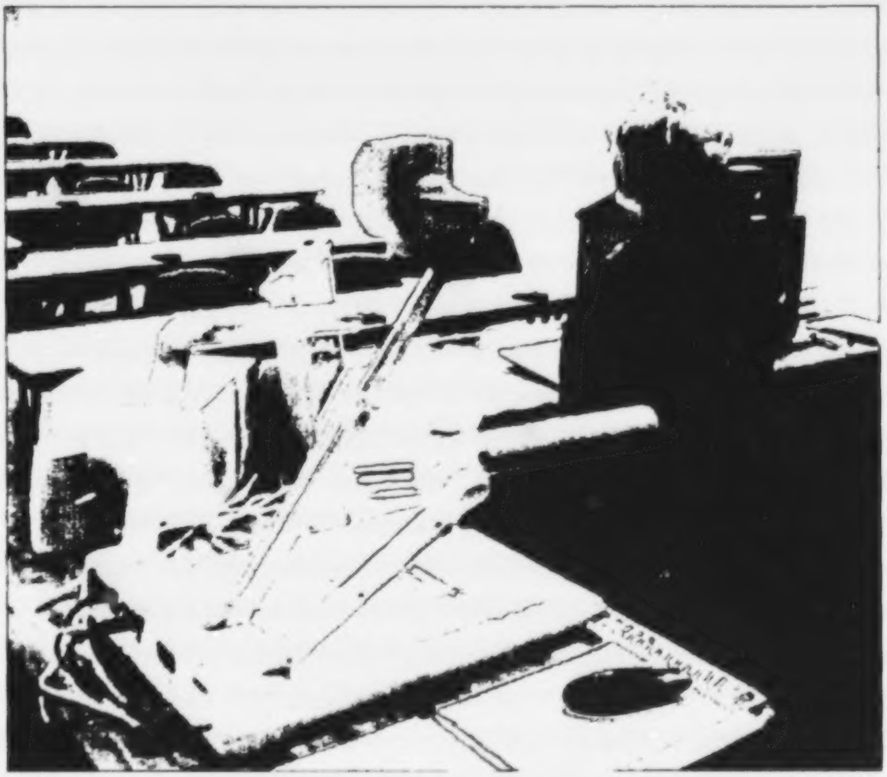
According to Metcalf (1998), "Visual materials need to be adapted to the distance [learning] environment" (p. 125). Specifically, most distance learning courses require that course materials be redesigned for use with a particular technology or set of technologies. In an interactive television course this redesign entails changing content for delivery using presentation graphics software and/or for placing presentation materials on the World Wide Web. For a detailed discussion concerning the use of presentation graphics software, see Chapter 10. For a detailed discussion about creating materials for the Web, see Chapter 11.

As indicated in Chapter 6, many institutions will provide faculty members assistance with this conversion process. Even with assistance, a faculty member needs to monitor this process. If a faculty member has experience using presentation graphics software in a traditional face-to-face classroom, he or she will learn quickly that the presentations that worked on a large projection screen in the front of the classroom will look very different on a small television monitor. Therefore, even presentations that have been created for use in a traditional classroom will need to be converted for use in an interactive television environment. To illustrate this potential problem, a picture that displays on the lower right-hand corner of a large projection screen may be lost below the visible area of the television monitor. Both of the authors have used computer-based presentations in face-to-face courses and were required to make significant changes in text sizes and color selections to optimize their use in an interactive television classroom.

Faculty Teaching Load

Regardless of the level of support the faculty member receives in course material conversion, preparing an interactive television course can be a time consuming process. Metcalf (1998) reported that it takes instructors "at least twice as much time to prepare and deliver their distance classes" (p. 125).

Another related issue concerns how interactive television courses are "counted" toward a faculty member's teaching load. At some institutions, if a faculty member teaches an interactive television course with students at both the local classroom and remote classroom(s) this is considered one course toward the faculty member's teaching load. Conversely, at other institutions this situation could be considered a two-course teaching load.



From an instructional standpoint, the most important issue is the total number of students at the multiple locations. To illustrate this point, one of the authors teaches an introductory counseling course using interactive television between the main campus and a remote center approximately two hours south of the main campus. The author and her department chair have an agreement that the total enrollment in the course will be limited to 20 students. When registration begins the limit at each site is set at 10 students. If the limit is increased at one site, a corresponding decrease occurs at the other site.

Site Facilitators

The presence of site facilitators in the remote classroom(s) can make an instructor's interactive television experience much more positive. The role of the site facilitator will vary greatly from institution to institution.

At one extreme, for some institutions this person may serve only as a contact person for students at a remote site when technical problems with equipment in the interactive television classroom are encountered. In this situation, the site facilitator may have the responsibility for multiple interactive television classrooms at one location. The faculty member's contact with this type of site facilitator may be very limited. If the responsibilities of the site facilitator do not entail distribution of materials from the faculty member to the students and/or collection of materials from the students for the instructor, the faculty member will need to address and resolve this issue in the course planning process.

At the other extreme, for some institutions this person may serve as something close to a "co-teacher" in the remote classroom. Some universities use graduate students within the content area to serve in this role. Where this is so, the site facilitator probably will perform many of the same functions as the instructor (e.g., facilitating discussions, answering content-related questions, collecting and distributing materials).

In most institutions the role of the site facilitator falls somewhere between these two extremes. At a minimum the site facilitator's role should include the following:

1. Check, and if necessary, "turn-on" equipment before class starts.
2. Provide students at the remote location with an orientation to the interactive television classroom equipment.
3. Provide technical assistance for remote students with equipment in the interactive television classroom as well as any other distance learning technologies that are being used in the course (e.g., Web, e-mail).
4. Distribute materials for the instructor.
5. Collect materials from students and forward these items to the instructor.
6. Proctor exams.

In order to meet these responsibilities, the site facilitator would not be required to have an academic background in the content area of the course. Rather, the facilitator would need to possess technical, organizational, and interpersonal skills.

Regardless of the exact role of the site facilitator for a faculty member's course, it is highly important that the faculty member clearly communicate to the students the role of this site facilitator (e.g., during course orientation, in the syllabus). If it is the role of the site facilitator to answer course content-related questions, the students should be advised of this fact. Conversely, if answering content-related questions is not a role of the site facilitator, then students should be advised not to direct these types of questions to the site facilitator. It is imperative that the faculty member, site facilitator, and students have a common understanding of the roles and responsibilities of the site facilitator.

Both of the authors have taught interactive television courses in the past without site facilitators. However, we believe that a competent site facilitator can add to the learning experience for the students because the faculty member is able to spend less class time on "administrivia" and more time on the teaching and learning process. Brintnall-Peterson and First (1999) noted that "The local site facilitator is the human link at the local level" (p. 459).

Delivering Content

Whether in a face-to-face classroom or an interactive television classroom, many faculty members feel their most important role in the teaching and learning process is to provide content to students. This means that faculty members must select which techniques are best for content delivery in an interactive television classroom. Friscia (1998) suggested that faculty members in these courses should "use the strengths of interactive video by using visuals – graphics, video, etc., and maximizing interactivity, both student-instructor, and student-student" (p. 504).

The interactive television teaching experiences of both of the authors suggest the following general guidelines for delivering content to students:

1. "Turning verbal information into visual communication" (Williams et al., 1999, p. 117) by using presentation graphics software (e.g., Microsoft® PowerPoint™, Corel® Presentations™) to support content delivery during class. For more information on developing presentation graphics for use in distance learning courses, see Chapter 10.

2. Provide students with access to a copy of these presentation materials by either:

    a. Having a handout containing copies of the slides distributed to students at both the local and remote site(s).

    b. Placing a copy of the presentation on the course web site prior to the beginning of the class meeting.

3. Keep presentations short (i.e., 15 to 20 minutes) and follow up each presentation with discussion or other activity to encourage students to apply the content. Williams et al. (1999) proposed that this process helps in "organizing information into 'manageable chunks' that can be received, understood, and remembered" (p. 117). The Center for Distance Learning Research (1996) suggested that it is important to break the class "into 10-15 minute segments to allow questions, review of material or other feedback" (p. 21). In a similar vein, Distance Learning Dynamics (1998) emphasized the significance of keeping "presentations to 20 minutes and follow with application projects" (Pt. 5, p. 8).

4. Consider providing some or most of the content in an online format for students to review prior to class. This allows class time to be used for (a) discussions, (b) demonstrations, and (c) activities focused on applying the content. For more information concerning the development of web-based content to support a distance learning course, see Chapter 11.

The key to effective content delivery in an interactive television environment is twofold. First, the faculty member must plan presentations that take advantage of the distance learning technologies. Second, content delivery should be followed by discussion and other related activities that provide opportunities for students to interact with other students and the instructor.

In addition to the use of presentation graphics and online resources to support content delivery in an interactive television course, a faculty member can still incorporate most "traditional" face-to-face techniques with slight modifications. For example, guest speakers can still be included in the course. However, it is possible that some guest speakers may be uncomfortable using the videoconferencing equipment. Thus, if appropriate, a faculty member may want to make arrangements for the guest speaker to practice with the equipment prior to beginning the class meeting.

The faculty member's decision concerning how to deliver course content (e.g., use of presentation graphics software, online resources, guest speakers) for the various course topics should be integrated into the "Selection of Instructional Techniques and Resources" section of the micro-level instructional design model for that topic. For more information concerning the micro-level instructional design process, see Chapter 4.

Providing Interaction

Interaction is a prominent element of effective teaching in a videoconferencing environment. The following scenario illustrates the importance of interaction.

> Many of us have experienced the traditional classroom in which the instructor teaches by a relatively formal lecture and with little or no student interaction. In these settings many of us, even when interested, have found it difficult to enjoy and be a part of the learning process. Imagine that same scenario as we sit miles away from the instructor while watching a TV set and listening to a "talking head." Maintaining student interest becomes an even more difficult challenge in distance learning than in the live classroom setting. (Wolf, 1998, p. 469)

Wolf's concerns were echoed by Rutz and Hajek (1998) when they noted, "Instructors should avoid lecture-only presentations" (p. 317) in an interactive television environment.

One tactic to address these concerns is to "use appropriate and varied presentation methods – limiting traditional lecture, and encouraging discussion" (Friscia, 1998, p. 504). Moreover, "Instructors should also seek to incorporate mechanisms for active learning which involve students at both the local and remote sites" (Rutz & Hajek, 1998, p. 317).

Cyrs (1997) described over 150 interactive exercises which can be incorporated into a videoconferencing environment. According to Cyrs:

> Most of the activities require some form of cooperative learning in small groups. Many of these activities were developed originally for traditional educational situations in which the instructor was physically present with the students . . . when adapted for teleteaching [videoconferencing], certain modifications need to be made in terms of specific and inclusive directions, both oral and written. (p. 144)

One example of this type of interactive activity for a videoconferencing course was described by Edmundson (1997) as the "66" Method. Edmundson provided the following guidelines for utilizing this technique:

> - Limit sessions to 5-15 minutes; allow for report-back time.
> - Assign 6 six people to a discussion group for 6 minutes.
> - Describe how the "buzz" group is to work, and note the topic to be discussed.
> - Set clear limits and help the group stay on task specific statements.
> - Encourage people to talk, share, contribute, think, and participate. (p. 16)

Distance Learning Dynamics (1998) stated "Any learning activity [like the 66 method] that can be successful in a traditional teaching/learning environment can also be applied to a distance learning environment if it is matched with the appropriate technology" (Pt. 5, p. 8). In discussing the process of adapting face-to-face learning activities for an interactive television environment, Baker and Stark (1998) acknowledged that these activities "require more planning and intentional effort" (p. 484) on the part of the instructor.

In addition to providing opportunities for interaction during regular class meetings, Baker and Stark (1998) suggested methods of supplementing classroom time with additional opportunities for student-student and student-instructor interaction. Specifically, they recommended the use of electronic telecommunications technologies. The most popular of these technologies is electronic mail. "More and more distance students have found that e-mail is one good way to stay in touch with their instructors/trainers and with other students in their classes" (Baker & Stark, p. 485). They also suggested another form of e-mail called listserv technology. For more information on using electronic mail and listserv technologies in a distance learning course, see Chapter 12.

Along with electronic mail and listserv technologies, a faculty member may choose to incorporate web conferencing software into an interactive television course. The features included in different web conferencing packages will vary from vendor to vendor. However, some of the most typical features of web conferencing software will include (a) bulletin board, (b) chat, and (c) whiteboard.

To illustrate the potential uses of web conferencing software in an interactive television course, the counseling faculty member could post a case conceptualization exercise using the bulletin board feature. After reviewing the case, the students would formulate their initial responses and post them to the bulletin board. Further, the students would review other students' comments prior to the next meeting of the class. Finally, the faculty member would use the bulletin board activity as a "lead-in" to the next discussion topic. For more information pertaining to the use of web conferencing software in a distance learning course, see Chapter 13.

Evaluating Learning

An evaluation of student learning occurs at two levels. The first level of evaluation tends to be informal, while the second level of evaluation tends to be formal.

Informal Evaluation Techniques

Both the instructor and the student should complete an informal evaluation of the student's learning. In traditional face-to-face classrooms, many instructors will spend time probing individual students for responses in order to "check their understanding" of a subject. This process should help the student gain an understanding of his or her own competence in a specific area of the course. This same process is still possible in an interactive television environment.

An alternative approach that lends itself to an interactive television environment would entail a faculty member preparing questions for small group discussion at all classroom sites. Each group would be required to report back to the larger group on selected items. The faculty member can gain a general assessment of the class members' understanding of a specific topic based on each group's responses to the questions. The advantage of this technique is threefold. First, it provides an additional opportunity for student-student interaction. Second, it allows time for counseling students to talk and share their ideas and experiences with each other. Third, it gives a chance for peer teaching and learning when group members discuss alternative responses to the faculty member's questions. Both of the authors integrate high levels of small group activities in their interactive television courses and both have received positive feedback from students regarding this approach.

Formal Evaluation Techniques

If institutions provide site facilitators at the remote site(s), then faculty members can administer examinations in the same method that they would use in the face-to-face classroom. Further, students at the remote location(s) can submit research papers, videotapes, and other items to the site facilitator for transfer to the faculty member. The issue for the faculty member is coordinating the timely transfer of items from the site facilitator to the instructor for review and then back to the site facilitator for distribution to the students at the remote site(s). The timeliness of this transfer is important because without coordination it may take several days for the items to be forwarded to the faculty member. These delays can make students at remote sites believe that the faculty member is not providing them with timely feedback.

For example, the institution where the authors are employed provides a shuttle service between the main campus and a remote teaching center. This shuttle operates three days per week. Thus, a faculty member can in most cases, receive items from the remote site within one or two days.

If the institution does not provide a site facilitator, the logistics of formal evaluation can become much more problematic. If this proves to be the case, the faculty member has several options for traditional testing. These options include:

1. Requiring students at the remote location(s) to travel to the main campus for testing. However, it would be important to advise students at the remote site(s) of this requirement prior to their enrollment in the course.
2. Having the faculty member travel to a remote location to administer a test while a colleague administers the test at the local site. One of the authors utilized this approach in an interactive television course that he recently completed.
3. Sending copies of the tests to students at the remote location via the fax machine and having the students fax the completed exam back to the instructor. In this situation, the faculty member would proctor the exam at the remote location using the videoconferencing technologies. If a remote location has more than a few (e.g., 3 to 4) students, this can become a logistical nightmare. Specifically, for 3 students to take the exam, the faculty member would need to fax 3 copies of the exam to the remote location. Given the quality of facsimiles, these copies can often be difficult for students to read. Further, after each student completes the test the process is reversed, and the student must fax the completed exam back to the faculty member. Although feasible, this option has the potential for problems at numerous steps in the process.

For students at the remote location(s) without site facilitators to submit research papers, videotapes, and other items for evaluation to the instructor, alternative arrangements must be planned prior to the beginning of the course. The faculty member will either have the students send the items to the faculty member via electronic mail, the U.S. mail or a delivery service. An alternative may be for the students to leave the items with some designated person at the remote location.

One of the authors utilized the latter approach in an interactive television course that he recently completed. Specifically, the students at the remote location were directed to leave their research projects with the building manager. This faculty member had made arrangements with the building manager to collect these items and forward them to him.

Clearly, the presence or absence of a site facilitator dramatically impacts the course planning process for a faculty member utilizing a videoconferencing environment. This is true to some degree regarding the delivery of course materials to remote students. It is apparent that the absence of a site facilitator can make a faculty member's efforts to maintain academic integrity of students at the remote location(s) much more difficult.

Conclusion

As succinctly stated by Baker and Stark (1998), "In short, creative teaching has a definite role in effective teaching at a distance [i.e., interactive television]" (p. 485). This chapter discussed some of the major issues with which a faculty member needs to be concerned when planning and delivering an effective interactive television course. Included were (a) administrative issues unique to interactive television (e.g., equipment, course material conversion), (b) concerns related to how the course "counts" toward faculty load, as well as (c) how to work with a site facilitator. Further, the text reviewed matters unique to delivering course content, providing opportunities for student interaction, and evaluating student learning in an interactive television environment.

When used in conjunction with the information presented in this chapter, the following "Interactive Television Course Checklist" should assist a faculty member in planning and delivering an effective interactive television course. For additional information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/08

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Interactive Television Checklist

Course Title: ______________________________

Comfort Level with Equipment	High	Low	N/A	Comments
Cameras				
Television monitors				
Microphones				
Videocassette recorder				
Computer				
Fax machine				
Telephone system				
Other:				
Faculty Load Issues	**Local**	**Remote**	**Total**	**Comments**
Number of locations				
Number of students				
Other:				
Site Facilitator Roles	**Yes**	**No**	**N/A**	**Comments**
Provided				
Check & "turn-on" equipment				
Orientation to ITV equipment				
Technical assistance with distance learning technologies				

Interactive Television Checklist

[Continued]

Site Facilitator Roles	Yes	No	N/A	Comments
Distribute materials for instructor				
Collect materials from students				
Forward student materials to instructor				
Proctor exams				
Remain in room for entire class				
Facilitate class discussions				
Other:				
Other:				
Delivering Content	**Yes**	**No**	**N/A**	**Comments**
Included in the "Selection of Instructional Techniques and Resources" section of micro-level instructional design model for each topic				
Plan to use presentation graphics software				
Plan to provide students with presentation materials in class				
Plan to provide students with presentation materials via web site				
Other:				

Interactive Television Checklist

[Continued]

Providing Interaction	Yes	No	N/A	Comments
ITV interactions included in the "Selection of Instructional Techniques and Resources" section of micro-level instructional design model for each topic				
Electronic interactions (e.g., e-mail, chat, bulletin board) included in the "Selection of Instructional Techniques and Resources" section of micro-level instructional design model for each topic				
Preferred methods for providing opportunities for student-student and student-instructor interactions				
Evaluating Learning	**Yes**	**No**	**N/A**	**Comments**
Informal assessment strategies included in the "Methods of Student Assessment" section of micro-level instructional design model for each topic				
Formal assessment strategies included in the "Methods of Student Assessment" section of macro-level instructional design model				
Formal assessment strategies included in the "Methods of Student Assessment" section of micro-level instructional design model for each topic				
Notes:				

Chapter Nine

Online Courses

The U.S. Department of Education (1999a) reported that during the 1997-1998 academic year "asynchronous Internet instruction" was the most popular distance learning delivery technology being used by 58% of higher education institutions. Additionally, this report evidenced that during this same time frame, 19% of the institutions reported using synchronous Internet instruction. Also, Perrin (1999) noted, "The success of the Internet for teaching and learning is due in part to ease of access, ease of navigation, and interactive elements that reinforce positive learner behaviors."

Given the prevalence of Internet-based instruction on campuses, this chapter will focus on assisting counselor education faculty members in preparing a course to be taught online (i.e., Internet instruction with asynchronous and/or synchronous components). According to Daniels, Tyler, and Christie (2000):

> It is expected that various methods of on-line instruction will either be blended with [i.e., hybrid approach] or replace the traditional instructional strategies that are most commonly used in higher education programs, including counselor education. At present, most counselor educators are just beginning to explore the possibilities of using on-line instruction. Nonetheless, the transition from the exclusive use of traditional methods to the adoption of on-line instructional strategies has begun. As counselor educators become more familiar with on-line instruction, the rate of the transition will, in all likelihood, increase until sometime soon every graduate of a counselor preparation program will have completed a portion of his or her program on-line. (pp. 315-316)

Administrative Considerations

Some of the common administrative issues that a faculty member needs to consider when designing a distance learning course were addressed in Chapter 6. In addition to these general issues, teaching in an online environment provides some administrative considerations which are unique. These matters encompass five areas: (a) class size, (b) rethinking the classroom community, (c) matters unique to the conversion of course materials for use in an online environment, (d) course web site management, and (e) student competence in using online course technologies.

Class Size

At first, many institutions viewed online education as a "cash cow." Many administrators probably thought of online courses as a new way to generate student "head count" without taking up classroom space. However, many faculty members and administrators quickly learned that large online courses are nothing more than electronic correspondence courses. If it is the intent of the institution for a faculty member to engage in electronic interactions with students, the class size must be maintained at a number that makes these interactions feasible.

Therefore the question becomes, what is the optimal class size? Currently no definitive answer exists to this question because as in a face-to-face course, the optimal class size depends on a number of factors (i.e., nature of the material, student assessment techniques, etc.).

One of the major considerations for a faculty member should be the amount of time and effort that he or she expends related to an online course. When discussing issues related to faculty teaching online courses, Boettcher and Conrad (1999) found that faculty members:

> are spending more and more time interacting with their students. A key determinant of how much time they spend is the number of students in their classes. Suddenly 30 students, a common on-campus class size, is overwhelming faculty online. Questions about the optimal size of a Web course are being asked more and more often. (p. 98)

If the course includes a high degree of interactivity between the counselor educator and students, the authors recommend that an online course be limited to about 15 to 20 students.

According to Ackerman (1999), "The overwhelming opinion is that the workload seems to go up exponentially with class size. The folks who do internet classes seem to find 20-25 is about tops (depends on subject)." Overmyer (1999) suggested "the optimal size to be around 15" students in an online course. A class size of 15 to 20 students may appear relatively high for some counselor education programs and relatively low for other programs. Further, Alden (1998) provided the following example to illustrate the importance of this issue:

> With asynchronous Web-based instruction, a faculty member does not conduct one class of 20 students; rather, he or she has 20 classes of one student each, all going at the same time. Online instructors spend a great deal of time working with and responding to individual students or teams of students. (p. 53)

Given that no universally accepted standard exists for class sizes for online courses, it is important for a faculty member to meet with his or her academic department chair or distance learning staff concerning campus guidelines regarding class size limitations. If no campus guidelines exist pertaining to this topic, the authors strongly recommend that a faculty member develop such guidelines for his or her class with the appropriate campus administrator. The lack of guidelines for teaching a large online course could lead to an unrealistic workload for a faculty member and a less than positive learning experience for a student.

Rethinking the Classroom Community

Prior to teaching an online course, many faculty members express concern that they will not be able to "get to know" their students and the students will not get to know each other (i.e., lack of community). In reality, what many of these individuals learn is that students can and do develop, relationships with others (i.e., the instructor and other students) in an online environment. Moore and Jackson (1998) identified five factors that are critical to the success of distance education courses. The factors included:

- humanizing
- connection between student and teacher
- knowing the student as learner
- excellence of learning materials
- faculty and student preparation (p. 144)

The first three factors have more to do with the techniques that the faculty member uses to foster a virtual learning community than with course content.

This idea of the importance of fostering a virtual learning community has been echoed by Carabajal, Miller, and LaPointe (1998). Specifically concerning this issue Carabajal et al. stated "in all our forms of computer-mediated communication with students . . . the instructor and webmaster strive to ensure their messages convey a positive social presence" (p. 84).

Clearly, the faculty member has an important role in shaping the virtual community for an online course. But just as in a face-to-face course, the faculty member is not the only factor that impacts the sense of community which develops within a course. Preece (2000) posited that an online community consists of:

- *People*, who interact socially as they strive to satisfy their own needs or perform special roles, such as leading or moderating.
- A shared *purpose*, such as an interest, need, information exchange, or service that provides a reason for the community.
- *Policies*, in the form of tacit assumptions, rituals, protocols, rules, and laws that guide people's interactions.
- *Computer systems*, to support and mediate social interaction and facilitate a sense of togetherness. (p. 10)

Using the factors suggested by Preece (2000), the following example illustrates application of these concepts to a virtual community which supports an online counseling course.

1. **People:** This would consist of the students as well as the instructor.
2. **Purpose:** The overriding purpose of the virtual community for an academic course should be exchange of information and ideas related to the course. However, as the students get to know each other, the purpose may expand to include idea sharing related to other courses or personal/professional issues (i.e., much like what occurs in the hallway before and after a face-to-face course).
3. **Policies:** The protocols for using online technologies need to be established by the faculty member and communicated to the students at the beginning of the course. Ideally, these protocols should be developed to encourage interactions between students concerning the course.
4. **Computer Systems:** The systems available to the faculty member will vary from campus to campus. Nonetheless, a counselor educator might be provided options concerning the type of web conferencing and courseware that he or she wishes to use. If so, the authors recommend that a faculty member new to the online course environment consider selecting systems that are easy to use (even if they are not quite as robust). As the faculty member gains experience (and confidence) in using web conferencing software (see Chapter 13 for more information concerning web conferencing software), he or she can move into the more full-featured packages.

Redesigning Course Materials

When a faculty member who has been teaching in a face-to-face environment thinks about moving a course to cyberspace, the task sounds daunting. However, in order to teach an online course, a faculty member will need to adapt course materials to take advantage of the technologies that can be used in an online environment.

Specifically, most distance learning courses require that course materials be redesigned for use with a particular technology or set of technologies. In an online course, this redesign probably entails changing the format of the content for delivery using the World Wide Web (For a detailed discussion of designing materials for the Web, see Chapter 11). As indicated in Chapter 6, many institutions will provide faculty members with assistance in this conversion process. But even with assistance, a faculty member needs to monitor this process.

In addition to web pages, many distance learning courses will incorporate the use of presentation graphics. However, if these materials had originally been created for use in a traditional classroom, these items will need to be converted for Web-based delivery. In addition to web pages and presentation graphics delivered by the Web, a faculty member may convert materials using other media (e.g., videotape, audiotape, CD-ROM).

Course Web Site Management

The focal point of most online courses is the course web site. Thus, getting the course web site initially prepared at the beginning of the course and keeping it updated throughout the course should be a major matter of concern to a faculty member. Even if the campus provides staff to assist a faculty member in converting course materials for web-based delivery and

initially "populating the web site" (i.e., placing information on the web site), the campus may or may not provide staff to assist the faculty member in maintaining and revising the web site throughout the course. If the faculty member is not going to receive support in web site maintenance it will be essential for the counselor educator to:

1. Develop skills in creating and updating (i.e., editing) web pages using an HTML editor. For more information on developing web pages, see Chapter 11.
2. Gain an understanding from the campus staff (i.e., distance learning, web development, or computer technology) on the procedures and protocols unique to his or her particular campus for uploading web content.

Student Competence in Using Online Course Technologies

Unlike many of the other distance learning technologies discussed in this text, online courses probably require the greatest level of technical competence on the part of the student. Boaz et al. (1999) suggested that it is important to provide students with "information about how to succeed with the technology" (p. 11) because many of them may have limited experience in using the different online course tools (e.g., bulletin boards, chat).

In addition to helping students learn course content, the faculty member needs to be fully aware of the students' ability to use the technological tools which allow them to participate actively in the course. Daniels et al. (2000) suggested using the "Technical Competencies for Counselor Education Students: Recommended Guidelines for Program Development" (ACES Technology Interest Network, 1999) as a benchmark for assessing student readiness. For example, one of these ACES guidelines suggests that students should be able to use e-mail. Another guideline suggests that students should be able to subscribe to counseling-related listservs (e.g., International Counseling Network). Both of these technological skills will be important requisites to successful participation in online courses.

Delivering Content

Alden (1998) proposed that "The Web offers a rich environment for presenting information in many ways that can be used to make an online course not only effective, but engaging, enjoyable, and interesting" (p. 11). Alden specified the use of the following types of media elements for delivering content through the Web:

1. Text
2. Simple Graphics
3. Artwork and Photographs
4. Animation
5. 3D Graphics
6. Audio and Video

The authors reviewed several web sites that supported online courses. With the exception of the courses being marketed to students in primarily large metropolitan areas where Internet access speeds are not an issue, our observations suggest the following:

1. Most course web sites are still primarily text-based. In many cases these sites appear to incorporate a web-based version of the instructor's lecture notes.
2. Most course web sites contain at least a few graphics or photographs. Many of the visuals are presented in order to help a student understand a course concept (e.g., a graph, chart).

3. Most animations on course web sites tend to be small and simple animated graphics (e.g., a flashing "click here" graphic) rather than large complex animations (e.g., an animation that "walks the viewer" through the steps of an ethical decision-making model). But with the recent introduction of sophisticated software designed specifically for developing web-based animations, the quantity and quality of these animation elements will become more common in web-based courses.

4. The use of 3D graphics, audio, and video on course web sites appears to be limited. Current bandwidth constraints will continue to limit the integration of these media elements into most course web sites.

5. Some course web sites have started to incorporate the use of presentation graphics. Many of the current presentation software packages allow users a "save as HTML" option. This option converts the presentation for delivery on the Web.

6. Most course web sites include numerous hyperlinks (both links within the web site and external to the web site). According to Perrin (1999):

   > One extraordinary advantage of Web Based teaching is the use of Hyperlinks. These create shortcuts between different experiences so the learner can traverse a body of knowledge in any direction or sequence. It is invaluable for searching and exploring large constellations of information and ideas, both as a research tool and as a learning tool. The non-linear nature of the Web encourages students to explore hyperlinks that are provided to the students by the instructor or other students.

However, it is important for a faculty member to remember the Web is not the only mechanism for delivering content to students in an online course. For example, a technique that is used extensively by Jones International University (i.e., the first fully online university to be granted regional accreditation by the North Central Association of Colleges and Schools) is to include a videotape component within the content delivery methodology. Applying the Jones University model to a counseling course, a videotape could include demonstrations of specific counseling techniques. As discussed in Chapter 8, videotaped presentations and/or demonstrations should be kept short (i.e., 15 to 20 minutes) and each presentation should be followed-up with an activity (e.g., bulletin board, chat) to encourage students to apply the content.

One major difference between a face-to-face course and an online course is how course content is "broken down." Typically, content for online courses is divided into "units" based on topics rather than into weeks. A course web site usually will have content modules (i.e., web pages, reading assignments, interactive activities, etc.) for each unit. In discussing the reasons for breaking a course into units, Boaz et al. (1999) noted, "As much as possible, design your learning environment in small 'bites' or pieces. Students working at a distance, especially busy students, will frequently study in smaller time blocks and will appreciate the modular structure" (p. 11).

One of the questions that a faculty member developing an online course needs to consider is "How much information should I provide to the students"? In a face-to-face course through simple interactions with the students during class, a faculty member can quickly tell whether the students understand a concept or need another example and/or further explanation. Given the nature of this learning environment, if a faculty member decides to provide another example, all the students receive the same additional information.

Conversely, in an online environment this is not necessarily the situation. Online course content can be delivered using a technique called "scaffolding." According to Althauser and Matuga (1998), scaffolding is "the process through which an instructor may support students in learning tasks that may be *beyond* their current capabilities by creating and controlling task elements that make learning manageable *within* their current capabilities" (p. 193). Within the context of this discussion concerning online courses, a scaffolding structure provides additional learning opportunities (e.g., examples, explanations) for those students who need them, but does not require all students to complete the additional learning opportunities.

The following example illustrates the use of scaffolding in a counselor preparation course. In teaching a unit of instruction that focuses on introductory counseling theories, a faculty member could develop a web page that provides the instructor's notes regarding this topic. After reviewing the textbook materials and the instructor's notes, the student would link to a web page containing an interactive quiz. This quiz would assist the student in "checking his or her own understanding" of the concepts presented in the unit. The student would complete the first item on a multiple-choice quiz. If the student selects the correct response, the screen would present him or her with positive feedback reinforcing the correct response and the screen would move to the next question. If the student selects the incorrect response, the screen would present him or her with feedback explaining why the response was incorrect and could provide links to additional learning opportunities (e.g., examples, explanations, an easier self-check question) pertaining to this topic. In this way, the student who needs additional learning opportunities receives them and the student who does not need them can move forward.

Another example of scaffolding used in online courses involves the use of cyber-based study groups. This structure provides online students with additional support from a group of pre-determined peers.

Thus, content can be delivered using a variety of media and reinforced by using various scaffolding techniques. The scaffolding allows individualized instructional support for students.

Providing Interaction

An online course encompasses more than just content delivery. Another key component to a successful online course is interactivity. Whether being delivered face-to-face or in an online environment, a course is far more than delivering content. An online course that focuses only on delivering content could be considered nothing more than a "high tech" correspondence course. What makes an online course a rich learning experience for students are the opportunities to interact with the faculty member and other students.

Interactions with other members of the classroom community (i.e., face-to-face or online) help a student to understand course concepts. This understanding unfolds within the context of the experiences of the faculty member and other students. The only difference in interactions between a face-to-face course and an online course relates to the nature and timing of these interactions.

According to McCormack and Jones (1998):

> The level of interaction provided in a classroom, Web based or physical, has more to do with the method of teaching than it does with the medium used. A face-to-face lecture can be totally noninteractive if the lecturer's approach discourages student participation. On the other hand, a lecture can provide a great deal of interaction if the lecturer encourages small group discussion and other appropriate behavior. Similarly, a Web-based classroom can be totally interactive or have absolutely no interaction, depending on the educator's approach. (p. 25)

In discussing the role of the Web in online learning Bonk and Reynolds (1997) suggested:

> The Web is a tool for "assisting in learning" . . . not simply an extension of or substitution for traditional teaching practices . . . . As assisters of learning, instructors manage and structure tasks, model and demonstrate ideas, provide questions and feedback, coach or scaffold learning, encourage students to articulate beliefs and ideas, foster student reflection and self awareness, push student exploration and application of skills. (p. 168)

In general, most campuses that support online courses will provide faculty members and students with access to some or all of the following tools in order to support electronic interaction in an online course:

1. E-Mail
2. Listserv
3. Bulletin Board
4. Chat

The focus of this chapter's discussion is on how to use these tools to provide interaction (i.e., student-instructor and student-student) within the course's virtual community rather than on the technical issues related to the use of each of these tools. For information concerning specific use of these tools, see Chapter 12 for using E-Mail/Listserv and Chapter 13 for using web conferencing software (e.g., bulletin board, chat).

Boettcher and Conrad (1999) proposed a six-step developmental model of online activities that help students "learn collaborative [online] techniques while they learn course content" (p. 91). This model is summarized as follows:

1. **Student Introductions:** During the first week have students use online tools (e.g., E-Mail, Listserv, Bulletin Board, Chat) to post a personal profile. It is important to encourage students to use this profile as a method for students and instructors to get to know each other. However, it is necessary to remind students not to reveal too much personal information (e.g., telephone number, street address).

2. **Pre-interactions:** During the second week, the students are assigned tasks that they can accomplish individually. For example, have the students locate and post a web-based resource on a particular topic (e.g., a web site related to school counseling).

3. **Interaction Activities:** During the third week, assign students to dyads. Have the students use this dyadic relationship to interact directly with one other student. To illustrate, have the students critique each other's responses to a specific instructor-initiated question.

4. **Collaboration Activities:** During the fourth week, the faculty member should form small groups of students by

bringing together "two or three dyads" (Boettcher & Conrad, 1999, p. 92) and have each group complete a cooperative activity. For instance, the students could work together using online tools (e.g., chat, bulletin board, listserv, e-mail) to rank order qualities of an effective counselor.

5. **Cooperative Activities:** During the next few weeks, the faculty member should move the group from collaborative activities to cooperative activities. These activities involve having each member contribute to create something. Boettcher and Conrad (1999) recommended getting a group started in cooperative activities by using an electronic variation of a jigsaw puzzle (i.e., an "activity in which each group member has a piece of the knowledge content needed to solve a puzzle" [p. 92]). An example that could be implemented in counseling courses might involve having the students work together using electronic tools to create an educational intervention for juvenile sex offenders.

6. **Online Community Activities:** Boettcher and Conrad (1999) described this stage as "large group conferences and seminar groups" (p. 93). If online classes are maintained at a reasonable size (i.e., 15 to 20 students), this could involve an online meeting of all class members. They also suggested that student teams could facilitate these meetings.

In general, online course interactions can be classified as either asynchronous or synchronous. The following section will discuss various asynchronous and synchronous electronic tools.

Asynchronous Interaction

As discussed earlier, asynchronous distance learning involves the teacher and student being separated by time. This same concept of separation by time applies to asynchronous interactions in an online course. The tools typically used for electronic asynchronous interactions are:

1. E-Mail
2. Listserv
3. Bulletin Board

The student or the instructor can initiate these interactions. Additionally, the student(s) and/or the instructor can be requested to respond to these interactions. A "one-to-one" interaction (e.g., student-to-instructor) probably would use e-mail, while a "one-to-many" interaction (e.g., instructor-to-all students) probably would use a listserv or a bulletin board.

The authors have found that "one-to-many" asynchronous interactions which involve using threaded discussions provide students with an opportunity to reflect and research topics before responding to an issue. The Northeast and Islands Regional Educational Laboratory at Brown University (1999) noted:

> The asynchronous nature of electronic collaboration allows participants to contribute to the conversation when it's convenient and to reflect on what others have said before responding. In addition, having to articulate in writing . . . forces writers to take time to be thoughtful and reflect carefully about new ideas and pathways. (p. 4)

A threaded discussion has been described by Clemons (n.d.) as:

> a place on the web where people can communicate . . . . Threaded discussions are generally organized by topics. People post messages to the discussion and others reply to this message or post their own message. It can be thought of as a conversation that takes place over time . . . groups can collaborate on a project, and they can be used to foster creative and critical thinking of students in a class.

Because of the lack of time constraints when compared to face-to-face courses (e.g., one night per week for three hours) this approach allows students to provide more complete and supported responses than those which normally occur in the face-to-face classroom. This approach also allows students to "build upon" or "react to" the ideas of others.

Synchronous Interaction

As previously expressed, synchronous distance learning involves the teacher and student being separated by space, but not by time. This same concept of separation by space, but not by time applies to synchronous interactions in an online course. The most common tool used for synchronous electronic interactions is chat. However, to a lesser degree some faculty members will use other tools (e.g., electronic whiteboards, desktop videoconferencing, and MUDS/MOOS) for synchronous electronic interactions.

According to *whatis.com®* (n.d.), chat involves:

> talking to other people who are using the Internet at the same time you are. Usually, this "talking" is the exchange of typed-in messages requiring one site as the repository for the messages (or "chat site") and a group of users who take part from anywhere on the Internet. In some cases, a private chat can be arranged between two parties who meet initially in a group chat. Chats can be ongoing or scheduled for a particular time and duration. Most chats are focused on a particular topic of interest and some involve guest experts or famous people who "talk" to anyone joining the chat. (Transcripts of a chat can be archived for later reference.)

Chat and other forms of electronic synchronous discussion can play an important role in an online course. Nevertheless, the authors have found that lack of typing skills of students and/or faculty members is one of the biggest obstacles in using chat as an instructional tool. Therefore, if a faculty member intends to use chat in a course, it is important to pace this electronic discussion is such a way that, regardless of typing skills, all students can participate actively.

The model for online activities suggested by Boettcher and Conrad (1999) can integrate both asynchronous and synchronous interactions to promote student learning. This model could also be implemented using only asynchronous or only synchronous interactions. Before deciding on whether to use a mix of asynchronous or synchronous interactions for a course, the faculty member needs to experiment with these technologies to determine which tools best fit the instructor's teaching style and the course goals.

Evaluating Learning

Once again we remind faculty members that evaluation of student learning occurs at two levels. The first level of evaluation tends to be informal, while the second level of evaluation tends to be formal.

Informal Evaluation Techniques

As previously discussed, both the instructor and the student should complete an informal evaluation of the student's learning. This same process is still possible in an online environment. In this type of environment, Hirumi and Bermúdez (1996) indicated that:

> assessments of student achievement need to be formative learning experiences rather than summative evaluation instruments . . . . Assessments that are used as an integral part of learning provided students with the opportunity to receive correct information early, rather than allowing incorrect information to be learned only to be discarded at a later date. In addition, when information is exchanged among learners, unanticipated learning experiences occur. (p. 13)

The following three approaches lend themselves to providing these types of formative learning experiences in an online environment:

1. One of the easiest methods of integrating on-going feedback to the students is a web-based interactive quiz. An example of an interactive quiz was provided when discussing scaffolding earlier in this chapter. This technique allows the student to monitor his or her own understanding of course concepts. Moreover, it is possible to have the results of these interactive quiz modules forwarded to the faculty member. Informally, the faculty member can then review these results to evaluate students' understanding of specific concepts.

2. Another method is the use of asynchronous and/or synchronous electronic communication tools. Using these tools the faculty member can pose questions that encourage students to reflect on their own learning. This method allows the student to compare his or her perceptions of a concept to the perceptions of other class members. It also allows a faculty member to review these interactions as data for an informal evaluation of the students' understanding of specific concepts.

3. After providing the student with videotaped demonstrations of specific counseling techniques, the faculty member could have the student complete a videotape that would require the student to demonstrate these same skills. The student could evaluate the videotape using an instructor-provided rubric.

Formal Evaluation Techniques

If institutions provide "proctors" for remote students then faculty members can administer examinations using methods similar to the methods that they would use in a face-to-face course. In this case the faculty member would forward copies of the exams to the proctors for administration to the remote students at specified dates and times.

If the institution does not provide proctors, the logistics of formal evaluation can become much more problematic. In this situation, the faculty member has a couple of options if traditional testing is used. These options include:

1. Requiring students to travel to the main campus for testing. Bear in mind, it would be important to advise students of this requirement prior to their enrollment in the course.

2. Having the faculty member travel to a pre-determined remote location(s) to administer a test.

For remote students to submit research papers, videotapes, and other items for evaluation to the instructor, alternative arrangements must be planned prior to the beginning of the course. The faculty member may either have the students send the items to the faculty member via the U.S. mail or a similar delivery service. An alternative method would require students to leave the items with some designated person at remote location (e.g., proctor's office).

Clearly, the presence or absence of proctors can dramatically impact the formal evaluation process in an online environment. Therefore, this is an important issue for the faculty member to understand and address early in the online course planning process.

Conclusion

This chapter discussed some of the major issues with which a faculty member needs to be concerned when planning and delivering an effective online course. These issues included administrative concerns unique to the online environment (e.g., class size, rethinking the classroom community, conversion of course materials for use in an online environment, management of the course web site). Further, the text reviewed matters unique to delivering course content, providing opportunities for student interaction, and evaluating student learning in an online environment.

When used in conjunction with the information presented in this chapter, the following "Online Course Checklist" should assist a faculty member in planning and delivering an effective online course. For additional information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/09

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Online Course Checklist

Course Title: ______________________________

Class Size	**High**	**Middle**	**Low**	**Comments**
Best Case Scenario				
Worst Case Scenario				
Course Web Site Management Skills	**High**	**Low**	**N/A**	**Comments**
Web Site Development				
Web Site Management				
Other:				
Other:				
Asynchronous Tool-Related Skills	**Yes**	**No**	**N/A**	**Comments**
E-Mail				
Listserv				
Bulletin Board				
Other:				
Other:				

Online Course Checklist

[Continued]

Synchronous Tool-Related Skills	**Yes**	**No**	**N/A**	**Comments**
Chat				
Electronic Whiteboard				
Desktop Videoconferencing				
MUDS/MOOS				
Other:				
Other:				
Boettcher & Conrad (1999) Model	**Asynchronous Tools**	**Synchronous Tools**	**N/A**	**Comments**
Student Introductions				
Pre-interactions				
Interaction Activities				
Collaboration Activities				
Cooperative Activities				
Online Community Activities				

Online Course Checklist

[Continued]

Providing Interaction	**Yes**	**No**	**N/A**	**Comments**
Asynchronous interactions included in the "Selection of Instructional Techniques and Resources" section of micro-level instructional design model for each topic				
Synchronous interactions included in the "Selection of Instructional Techniques and Resources" section of micro-level instructional design model for each topic				
Evaluating Learning	**Yes**	**No**	**N/A**	**Comments**
Informal assessment strategies included in the "Methods of Student Assessment" section of micro-level instructional design model for each topic				
Formal assessment strategies included in the "Methods of Student Assessment" section of macro-level instructional design model				
Formal assessment strategies included in the "Methods of Student Assessment" section of micro-level instructional design model for each topic				
Notes				

PART IV

SOFTWARE TOOLS TO SUPPORT DISTANCE LEARNING

10 Presentation Graphics
11 Web Pages
12 Electronic Mail
13 Web Conferencing

Chapter Ten
Presentation Graphics

> Because so much depends upon visual information in a distance education environment, the design and use of visuals in instruction is critical. Nearly all media formats have a visual component (e.g., video, text, hypermedia). Too often, however, educators do not place an emphasis on the development and use of quality visual materials. (Herring & Smaldino, 1998, p. 47)

In an interactive television environment the most important form of visuals is presentation graphics.

Presentation graphics are computer-generated materials that contain various media elements (e.g., text, clip art, charts, photographs, animations, audio, video). Many people think of presentation graphics as electronic overhead transparencies. In a face-to-face course, presentation graphics software can create documents that can be printed directly on acetate transparencies for use with an overhead projector. Additionally in a face-to-face course, presentation graphics can be displayed from a computer on to a large screen using an LCD projector.

As discussed in Chapters 8 and 9, presentation graphics can be used to assist in the delivery of content in both the interactive television classroom and the online environment. Presentation graphics can also be used to support other types of distance learning technologies (e.g., one-way video with two-way audio, one-way audio/video).

Software Alternatives

Presentation graphics can be developed using numerous software applications. Perhaps the most popular software applications for developing presentation graphics are Microsoft® PowerPoint™ and Corel® Presentations™. According to Shelly, Cashman, and Vermaat (2000):

> PowerPoint's roots stem from the innovative work performed by a small company called Forethought, Inc. Programmers at this pioneering business coined the phrase, desktop presentation graphics, for formal slide shows and created a complete software package that automated creating slides containing texts, charts, and graphics. (p. PP 1.5)

This chapter's companion web site contains links to tutorials concerning the use of presentation graphics software packages. However, both of these software applications have the following similar capabilities:

1. Add text, graphics, photographs, animations, audio, and video to the presentation.
2. Change slide backgrounds, fonts, colors, etc.
3. Add hyperlinks to web-based resources to the presentation.
4. Display presentations on the computer monitor.
5. Print handouts from the presentations.

6. Convert from desktop presentation to a web-based presentation.

Depending on the faculty member's purpose for using presentation graphics software, he or she could incorporate all of the capabilities into a course.

Although the two primary tools for creating presentation graphics are PowerPoint™ and Presentations™, presentation graphics can be created by using other software applications (e.g., word processing, multimedia authoring). In essence any software application that allows a user to develop screen displays in landscape format (i.e., wider than longer) and integrate text, graphics, or other multimedia elements (e.g., sound, video, animation) into a document can be used to develop presentation graphics. However, the ease of use of both PowerPoint™ and Presentations™ has made them the most common tools for developing presentation graphics.

Principles of Presentation Graphics Design

In part, because of the extensive capabilities of PowerPoint™ and Presentations™, it is very easy to build a presentation that contains "lots of stuff" (e.g., multiple animated graphics flying all over the screen, audio clips, fonts, and/or colors) on every screen. But, just because the capabilities are present, a faculty member may not want to incorporate everything into one slide or even one presentation. It is essential that a faculty member using presentation graphics remember that the primary purpose of presentation graphics is to support the delivery of content. Therefore, the presentation graphics should (a) "add value" to the presentation, (b) provide "a concrete referent for ideas" (Herring & Smaldino, 1998, p. 47), and (c) not distract from the instructor's message. Flynn and Rutkosky (2000) suggested the following guidelines for developing presentation graphics:

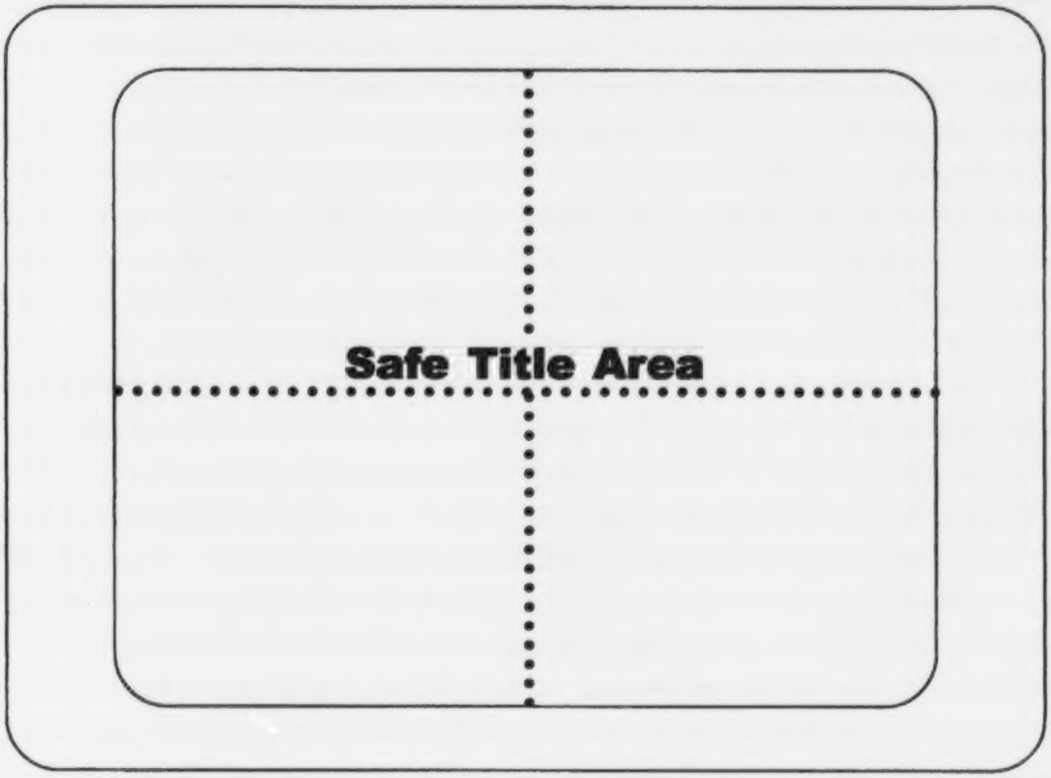
- Determine the main purpose of the presentation.
- Determine the output.
- Show one idea per slide.
- Maintain a consistent layout.
- Keep slides easy to read and uncluttered.
- Determine the output needed. (p. P-4)

One of the best methods for getting ready to use presentations graphics in a distance learning course is to begin incorporating them into face-to-face courses.

Presentation Graphics in Interactive Television Courses

In addition to the general guidelines suggested above, developing presentation graphics for use in an interactive television environment requires some special consideration. The Center for Distance Learning Research (1996), Gosselin (1998), and Herring and Smaldino (1998) have all suggested guidelines for developing presentation graphics. Furthermore, both of the authors have developed presentation graphics for use in their respective interactive television courses. Based on the suggestions from these various authors and our personal experiences, the following guidelines are offered:

- **Be aware of keeping materials within the "Safe Title" area.** The safe title area is the middle of the computer screen (i.e., everything except the outer most 7.5% to 10% of the screen on all four edges). Computer screens look similar to television screens (i.e., both display in landscape orientation).



However, the aspect ratio (width to height) of computer screens and television screens is slightly different. Then too, when computer images (i.e., digital) are converted to television images (i.e., analog) slight alterations in the size and position of items will occur. Thus, if all text and graphics are placed away from the edges, a faculty member does not need to worry about parts of the presentation being "cut off."

- **Keep presentations simple.** In a face-to-face classroom, an object flying across the screen may grab the student's attention. Yet, in most interactive television classrooms, the compression algorithms for sending the images to the remote site(s) will make the animation appear "jumpy."

- **Make sure the text is big enough for students to see.** Many interactive television classrooms are equipped with small television monitors that make small text difficult to read. This is a big difference when compared to a face-to-face classroom where the presentation is projected on an eight-foot screen in the front of the room. Different authors suggest different "rules" or guidelines for implementing text in this type of presentation (e.g., "Rule of Five" [Clay & Grover, 1995], "Rule of Seven" [Center for Distance Learning Research, 1996]). For example the "Rule of Seven" suggests that no presentation graphics slide should contain more than seven lines of text nor more than seven words per line. Another approach suggested that fonts should be at least a certain size (e.g., 24 point [Center for Distance Learning Research], 44 point [Gosselin, 1998]). The authors found it helpful to prototype the presentation graphics the semester prior to teaching the course by transmitting them to a remote classroom. In order to accomplish this prototyping, the authors had to make arrangements with someone to be in the remote classroom during this transmission to provide feedback concerning readability of the presentation graphics.

- **Use sans serif rather than serif typefaces.** According to Sinclair (1999):

  > Serif type has tiny horizontal lines attached to it that form parts of the characters. The serifs enhance readability by assisting your eyes to keep on track more easily as you read . . . . Publishers prefer serif type for its readability and hence use it for text. (p. 18)

  For example, this book is set using a serif typeface. Nevertheless, despite all the virtues of serif type, sans serif type (i.e., without serifs) should be used when developing presentation graphics for use in interactive television courses. The reason for this is related to the compression algorithms and the quality of the resolution on television monitors. Specifically, the serifs on the text are often lost in the conversion process and make the text difficult to read.

- **Use bold to emphasize text and avoid the use of *italics*. Bold makes words "stand out."** Under certain circumstances in an interactive television environment, *italics* can read like serifs.

- **Use graphics to help carry the message.** An old adage suggests, "A picture is worth a thousand words." This concept applies in presentation graphics when a faculty member uses charts, illustrations, pictures, etc. to support content delivery.

- **Use color combinations that provide high levels of contrast.** For example, use yellow and/or white text on a dark blue background. Again the purpose of this guideline is to ensure that students at the remote location(s) can clearly see the presentation graphics.

- **Avoid the use of the color "red."** Under certain circumstances in an interactive television environment the color "red" can look fuzzy on the television screen.

- **Avoid slide backgrounds that contain "small line patterns."** The use of fine line backgrounds will often result in one of two outcomes. First, the small lines will respond like the serifs on text and not be visible. Second, the lines will "come and go" as the monitor refreshes. This gives a flickering look that can be distracting to students. Therefore, use solid color backgrounds or backgrounds that contain "strong" lined patterns.

- **Provide copies of presentation materials to students as a handout or on the course web site.** This allows students to better concentrate on the discussion instead of concentrating on taking notes.

Presentation Graphics in Online Courses

Some faculty members have incorporated presentation graphics in online courses. These are normally situations where faculty members previously have used presentation graphics in their face-to-face courses. In online courses, the faculty members will use the "save as HTML" option in the presentation graphics software package. In general this option changes each slide into a graphic and builds a set of buttons for the user to navigate between the slides. The faculty member would then upload this "converted" presentation to the course web site.

In addition to placing the converted presentation on the web site for use by students in an online course, some faculty members have added audio clips to each of the slides. This system allows the students to listen to the faculty member's discussion while viewing the slides. However, adding audio clips to each slide can dramatically increase the time it takes for the students to review the presentation because each audio clip needs to be downloaded before it can be played.

If the faculty member feels that his or her comments are essential for the students to gain an understanding of the concepts being presented, this same approach (i.e., presentation with audio clips) could be provided to the students by creating a videotape or CD-ROM of the presentation. In general if presentation graphics were recorded onto videotape or CD-ROM, the same guidelines presented for interactive television would apply (e.g., avoid sans serif type, avoid "red").

Two major differences exist between using presentation graphics in an interactive television course and an online course. First, the interactive television environment should follow the additional guidelines listed above. These same guidelines are not necessary for an online course because all the materials are retained in a digital format and are only viewed on computer screens. Second, the presentation graphics in an interactive television course are used to supplement the faculty member's discussion. Whereas, in an online course, a faculty member needs to be careful not to assume that placing a set of presentation graphics on the course web site without any further explanation will be sufficient for delivering content. This assumption would be analogous to a faculty member standing in front of a course and "clicking" through slides without saying a word and thinking that the information has been presented sufficiently to the students.

Conclusion

This chapter discussed some of the major issues with which a faculty member needs to be concerned when using presentation graphics in a distance learning course. These issues included (a) identifying software options, (b) general guidelines for using presentation graphics, and (c) specific guidelines for using presentation graphics in both interactive television and online courses.

When used in conjunction with the information presented in this chapter, the following "Presentation Graphics Checklist" should assist a faculty member in optimizing the use of presentation graphics in distance learning courses. For additional information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/10

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Presentation Graphics Checklist

Course Title: ______________________________

	Yes	No	N/A	Comments
Materials within the "Safe Title" area.				
Presentations simple				
Text is big enough for students to see				
Sans serif typefaces				
Bold to emphasize text				
Graphics to help carry the message				
Color combinations that provide high levels of contrast				
Avoid the color "red"				
Avoid slide backgrounds that contain "small line" patterns.				
Copies of presentation materials to students as a handout or on the course web site				

Chapter Eleven

Web Pages

> Web page development and HTML is important to instructors because there is much that can be accomplished with a Web based instruction site. Whether you want to add support to an existing on-ground class that you teach, provide tutorials to supplement other teaching, or provide training modules or courses to a wider audience, knowledge of HTML will allow you to build it your way. (Batchelder & Tompkins, 1999, p. 447)

Chapters 8 and 9 exemplified how web pages can be used to assist in the delivery of content in both the interactive television classroom and the online environment. Web pages can also be used to support other types of distance learning courses (e.g., one-way video with two-way audio, one-way audio/video). However, in an online course environment, web pages are one of the primary methods for delivering course content.

What is HTML?

HTML is the language of the World Wide Web. According to *whatis.com*® (2000):

> HTML (Hypertext Markup Language) is the set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page. The markup tells the Web browser how to display a Web page's words and images for the user. Each individual markup code is referred to as an element (but many people also refer to it as a tag).

According to Lemay (2000), it is also important to understand what HTML is not. Lemay specifically pointed out that:

> The [web] pages you create with HTML may look radically different from [computer] system to system and from [web] browser to browser. The actual information and links inside those pages will still be there, but the onscreen appearance will change. You can design a Web page so that it looks perfect on your computer system, but when someone else reads it on a different system, it may look entirely different (and it may very well be entirely unreadable. (pp. 53-54)

Therefore, when developing web pages it is important to "test" these web pages on a diverse set of computer systems using various browsers since HTML code sometimes displays differently. As an example, the authors use the following guidelines to test web pages before they are published for "public viewing."

1. Establish the minimum computer operating system version requirements (e.g., Microsoft® Windows™ 98 and Apple® Macintosh OS™ 8). This information should be contained in the course syllabus and on the course web site. It is recommended that the counselor educator check with the campus distance learning staff because they may already have established standards for both the computer hardware and operating system requirements to be used in distance learning courses.

2. Establish the minimum browser version requirements for viewing the web site (e.g., Microsoft® Internet Explorer™ 4 and Netscape® Navigator™ 4). This information should be contained in the course syllabus and on the course web site. For a complete listing of the difference in web browsers, see this chapter's companion web site.

3. Upload (i.e., copy files from the local computer to the remote web server) the HTML files and all supporting files (e.g., graphics) into a "private directory" on the course web site.

4. Open each page using the minimum required version of Microsoft® Internet Explorer™ on a computer running the minimum required version of Microsoft® Windows™. Ideally, each page should be viewed with various display resolutions (e.g., 640 x 480, 800 x 600, 1024 x 768). According to Shelly, Cashman, and Vermaat (1999), "A screen with a 640 x 480 (pronounced 640 by 480) resolution, for example, can display 640 columns and 480 rows of pixels" (p. 5.6).

5. Open each page using the minimum required version of Netscape® Navigator™ on a computer using the minimum required version of Microsoft® Windows™ with various display resolutions.

6. Open each page using the minimum required version of Microsoft® Internet Explorer™ on a computer running the minimum required version of Apple® Macintosh™ OS with various display resolutions.

7. Open each page using the minimum required version of Netscape® Navigator™ on a computer running an Apple® Macintosh™ OS with various display resolutions.

If the web pages display correctly using the various combinations of (a) web browsers, (b) operating systems, and (c) display resolutions, transfer the pages and all supporting files to a "public" location in the course web site. If however one or more of the pages do not display correctly, "tweak" the problems on a local version (i.e., the copy on the computer) and repeat the process (i.e., upload and check). From experience, the authors have learned that correcting one problem can cause other problems.

This revision process sounds cumbersome and in truth, this process can become lengthy. The reason for this is that many faculty members expect that web pages will be formatted to look like word processing documents. In general, web pages will never look like word processing documents because the onscreen appearance was never a priority when HTML was created. Greenspun (1999) noted:

> There may be many things wrong with HTML. It is primitive as a formatting language and it is almost worthless for defining document structure. Nonetheless, the original Web/HTML model has one big advantage: All Web pages look more or less the same. You see something black, you read it. You see something gray, that's the background. You see something blue or underlined, you click on it. (p. 132)

HTML Editors – Software Alternatives

The good news for counselor education faculty members is that they do not have to be computer scientists or programmers to write HTML. Pirouz (1998) tells us that:

> The current alternative to mastering and tweaking HTML is to allow a WYSIWYG (what-you-see-is-what-you-get) tool to design web sites for you . . . . Although WYSIWYG tools save time and are generally easy to use, they can quickly leave you at the mercy of their limitations. (p. xiii)

The authors recommend that counselor education faculty members utilize WYSIWYG tools for web development. We also recommend that they gain some understanding of HTML or identify someone on campus that is knowledgeable about HTML. Thus, if web pages that have been designed with a WYSIWYG tool do not display in an acceptable manner, the HTML code can be tweaked. Moreover, Weinman and Green (2000) explained that web developers "can get by without understanding or writing a single line of [HTML] code. Attractive though it might be, we recommend that you do understand HTML at its simplest, so you aren't afraid of it" (p. 4).

Perhaps the most popular of these WYSIWYG tools (i.e., software applications for developing web pages without understanding HTML code) are Adobe® GoLive™, Macromedia® DreamWeaver™, Microsoft® FrontPage™, and Netscape® Composer™. This chapter's companion web site contains links to information relating to these and other HTML editors. All of these HTML editors encompass the following similar capabilities:

1. Add text, graphics, photographs, animations, audio, and video to web pages.
2. Change background, fonts, colors, etc.
3. Add hyperlinks. A hyperlink is:
   A reference or link, in the form of specially coded text or a graphic image, from some point in an HTML document to another point in the same document, or to another document somewhere on the World Wide Web, or to a specific point in another document on the Web. Clicking a hyperlink will jump you to the other linked point or document. (CTESC Web Services, n.d.)

Although these are some of the primary tools for creating web pages, other software applications (e.g., word processing, HTML tag editors) can be used for creating web pages. In essence, any software application that allows a user to create HTML code can be used to create a web page. Due to the ease of use of these WYSIWYG tools they have become the most common tools for web page development.

Principles of Web Design

The ease of use of these WYSIWYG editors facilitates building a web page that is not "user friendly" (e.g., numerous graphics, audio sounds, fonts, and/or colors) on every page. Bear in mind that just because the capabilities are present, a faculty member does not necessarily want to incorporate everything into one web page or even one web site. It is essential that a faculty member who is developing a web site remember that the primary purpose of the web site is to support the delivery of content. The web site should (a) enhance the student's learning, (b) provide a common reference point for learners and (c) support the instructor's message.

Conger and Mason (1998) provided the following insights concerning web site design:

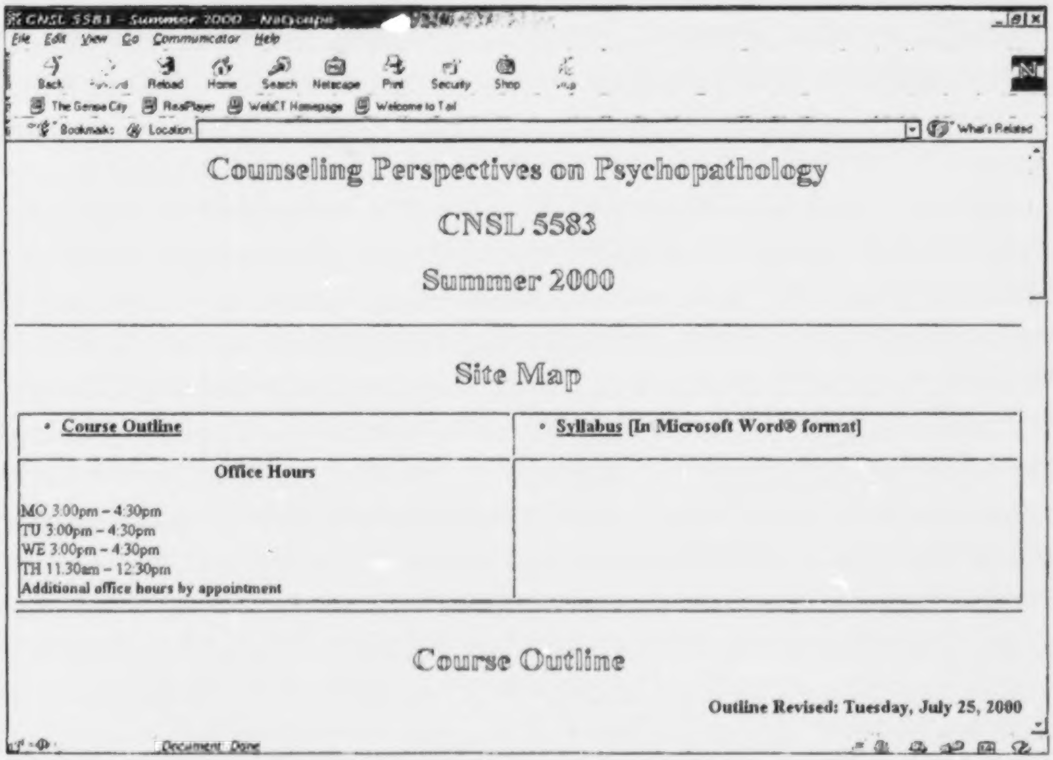
> It is a complex and formidable task to design a set of Web pages that effectively conveys information that can satisfy user needs and convert surfers to users. The site and its contents need to be:

- understandable
- interesting and valuable
- capable of converting surfers to users
- consistent and engaging
- a skillful integration of text, graphics, audio, video, and information extracted from databases
- easily navigated
- unified in look and feel (p. 10)

One of the best methods for getting ready to use web pages to support a distance learning course is to begin incorporating them into face-to-face courses.

Web Design in Online Courses

In addition to the general guidelines suggested above, developing web pages for use in an online course requires some special consideration because in many situations the course web site is not only the primary means of delivering course content, but it also serves as the central information point for all issues related to the course (e.g., calendar, assignments, syllabus). Boettcher and Conrad (1999), Hall (1997), McCormack and Jones (1998), Moshinskie and Novelli (1998), Porter (1997), and Ropel (1997) have all posited guidelines for developing web sites for use in an online course environment. Based on the suggestions from these writers and the authors' personal experiences, the following guidelines are offered:


CNSL 5583 – Summer 2000 – Netscape
File
Edit
View
Go
Communicator
Help
Back
Forward
Reload
Home
Search
Netscape
Print
Security
Shop
Stop
The Genesee City
RealPlayer
WebCT Homepage
Welcome to Tail
Bookmarks
Location
What's Related
Document: Done

Counseling Perspectives on Psychopathology

CNSL 5583

Summer 2000

Site Map

• Course Outline	• Syllabus [In Microsoft Word® format]
Office Hours MO 3:00pm – 4:30pm TU 3:00pm – 4:30pm WE 3:00pm – 4:30pm TH 11:30am – 12:30pm **Additional office hours by appointment**	

Course Outline

Outline Revised: Tuesday, July 25, 2000

- **Many students do not read web pages.** Rather they scan web-based materials. This means that where possible, present information in the form of "bulleted" lists with hyperlinks to additional information on related topics. These hyperlinks can be linked to other web pages within the course site or they can be linked to web pages within external web sites.
- **Be redundant.** Make it hard for students to miss important information. This does not suggest the need to type the same information in two locations. Instead, use hyperlinks to connect the locations.
- **Do not skimp on the amount of information placed on the web site.** Include extra information and resources on the course web site, but include this information as links from the primary pages. If information is not included as links a student may experience "information overload."
- **Be consistent in the use of headings, white space, and other visual clues.** These elements help organize the presentation of materials. The goal should be to avoid making the student "work" to try to figure out how the web site is organized.
- **Prototype and pilot test.** As mentioned in Chapter 6, begin incorporating web-based materials being developed for online courses into face-to-face courses. This allows a faculty member to receive feedback concerning the web site's ease of use and content.
- **Do not use underline to add emphasis to text.** In a web environment, underline implies hyperlink. Thus, underlining text that does not hyperlink can confuse students.
- **Select colors and fonts that complement each other.** WYSIWYG tools easily allow a user to introduce a variety of colors and font types into a web page. For example, to help organize information, use different colors (e.g., separate key terms from the body of the text by using different colors). Also, to help organize information use different fonts (e.g., use sans serif fonts for headings and serif fonts for the body of the text).
- **Make use of graphics purposeful.** Graphics are stored outside a web page and are loaded separately from the page itself. This is the reason that text on web pages appears before graphics. Then too, the sizes of graphic files are larger than the size of text files. So it is apparent that the addition of graphics "just for fun" should be avoided. On the other hand, graphics that have the potential to add value to a student's learning experience should be included. See this chapter's companion web site for links to optimizing graphics for use on the Web.
- **Include hyperlinks to faculty and technical support e-mail addresses throughout the web site.** Make it easy for students to contact the instructor or others with questions. This helps to keep a student from being isolated. As will be discussed in Chapter 12, it is very important that these e-mail requests be responded to in a timely manner.
- **Check hyperlinks on a regular basis.** One of the exciting elements of the Web is the ability to change and re-organize

web sites. However, every web page within a web site structure possesses a unique Uniform Resource Locator (URL). When a web page is moved or renamed, the URL for that web page will change. Therefore, if hyperlinks are not updated, they will not link to the correct locations. Additionally, web pages are often removed from web servers and hyperlinks to these web pages then become inactive.

Conclusion

This chapter focused on some of the major issues which a faculty member needs to be concerned with when developing web pages to support distance learning courses. These issues included (a) identifying software options, (b) general guidelines for web design, and (c) specific guidelines for web design in an online course environment.

When used in conjunction with the information presented in this chapter, the following "Web Design Checklist" should assist a faculty member in optimizing the use of web pages in distance learning courses. For further information concerning these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/11

Purchasers of this book are granted permission to reproduce this checklist for personal use.

Web Design Checklist

Course Title: ____________________

	Yes	No	N/A	Comments
Materials presented in "bulleted" format				
Important information presented and/or linked in multiple locations				
Extra information and/or resourses included as links				
Consistent use of headings				
Materials prototyped and/or pilot tested				
Avoid underline to add emphasis				
Color and fonts complement each other				
Graphics are purposeful				
Hyperlinks to faculty and technical support e-mail addresses				
Hyperlinks are current				

Chapter Twelve

Electronic Mail

"You have mail," just a few years ago meant walking to the main office in one's academic department or possibly out to the mailbox at the end of one's driveway. Today, electronic mail (e-mail) is becoming an integral part of the communication system within many academic institutions. At most institutions receipt of regular postal mail (called "snail mail") from a remote location can take several days, with international mail sometimes requiring weeks to be received. Thus, in comparison to snail mail, e-mail delivery is relatively instantaneous.

A majority of faculty members have e-mail accounts though some might not use them. Today most faculty members do use e-mail on a regular basis to communicate with colleagues, friends, and students throughout the world. One of the biggest advantages of e-mail is the asynchronous nature of its use as a communication device. This can provide a much better option than "playing telephone tag" with a colleague or student. The medium allows the sender to write at his or her convenience and the receiver to read at his or her convenience.

This e-mail phenomenon at colleges mirrors the changes going on in American society at large with regard to electronic communication. According to Bostock (1997), "Communication by e-mail is the single most common use of the Internet" (p. 228). Many students have e-mail accounts. These accounts may be provided by the institution, the student's place of employment, a local Internet Service Provider, or one of many free e-mail services (e.g., Microsoft® Hotmail™, Netscape® WebMail™).

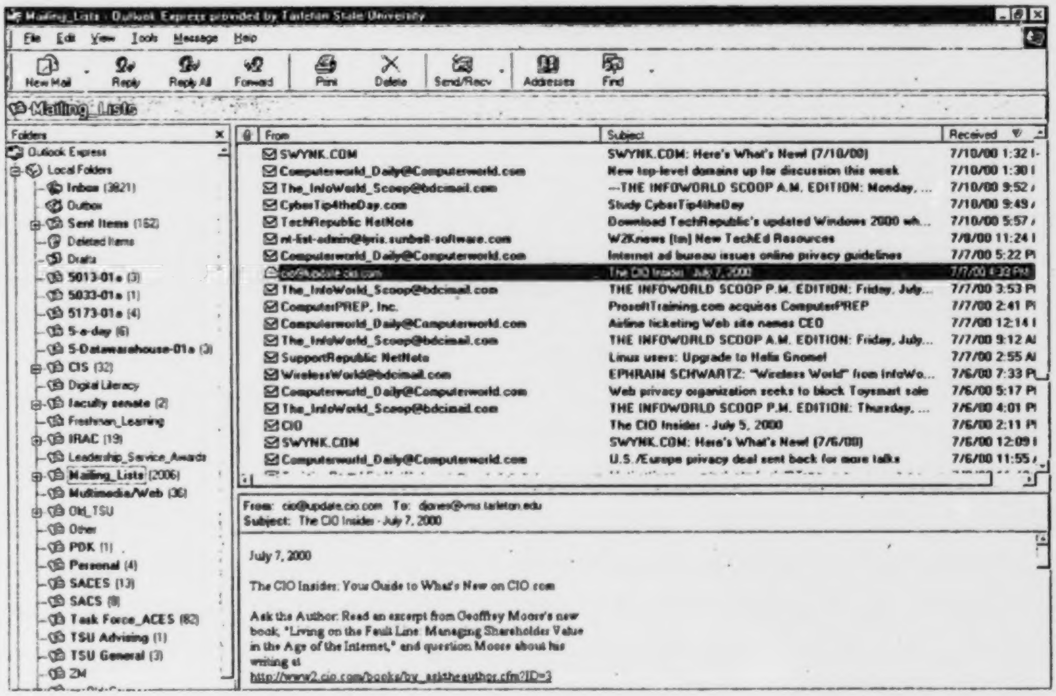
E-mail Alternatives

When initially received by a mail server (i.e., a computer established to manage the delivery and receipt of e-mail to and from multiple users), e-mail is stored within the computer and will remain there until deleted. In general, two types of computer applications are available to the user who sends and receives e-mail. The first group of applications is considered "off-line mailers." Normally, these programs "download" mail from the mail server to the user's local (i.e. desktop) computer then delete the messages from the mail server. The second group of applications is considered "on-line mailers." These programs allow the user to view and delete messages from the mail server without downloading any messages to a local computer. It is important for a faculty member to understand the differences in these technologies because he or she may have students in courses (i.e., face-to-face or distance) who could be using e-mail to communicate with the faculty member.

Off-Line Mailers

Off-line mailers (i.e., sometimes referred to as e-mail clients) are probably the most common type of mail programs used in homes and offices. According to *internet.com*® (1999-2000), an e-mail client is:

> An application that runs on a personal computer or workstation and enables you to send, receive and organize e-mail. It's called a *client* because e-mail systems are based on client-server architecture. Mail is


Mailing_Lists - Outlook Express provided by Tarleton State University
File
Edit
View
Tools
Message
Help
New Mail
Reply
Reply All
Forward
Print
Delete
Send/Recv
Addresses
Find
Mailing_Lists
Folders
Outlook Express
Local Folders
Inbox (3821)
Outbox
Sent Items (162)
Deleted Items
Drafts
5013-01e (3)
5033-01e (1)
5173-01e (4)
5-a-day (6)
5-Datawarehouse-01e (3)
CIS (32)
Digital Literacy
faculty senate (2)
Freshman_Learning
IRAC (19)
Leadership_Service_Awards
Mailing_Lists (2006)
Multimedia/Web (36)
Old_TSU
Other
PDK (1)
Personal (4)
SACES (13)
SACS (8)
Task Force_ACES (82)
TSU Advising (1)
TSU General (3)
ZM

From	Subject	Received
SWYNK.COM	SWYNK.COM: Here's What's New! (7/10/00)	7/10/00 1:32
Computerworld_Daily@Computerworld.com	New top-level domains up for discussion this week	7/10/00 1:30
The_InfoWorld_Scoop@bdcimail.com	—THE INFOWORLD SCOOP A.M. EDITION: Monday, ...	7/10/00 9:52
CyberTip4theDay.com	Study CyberTip4theDay	7/10/00 9:49
TechRepublic NetNote	Download TechRepublic's updated Windows 2000 wh...	7/10/00 5:57
ml-list-admin@lyris.sunbelt-software.com	W2Knews [tm] New TechEd Resources	7/8/00 11:24
Computerworld_Daily@Computerworld.com	Internet ad bureau issues online privacy guidelines	7/7/00 5:22
cio@update.cio.com	The CIO Insider - July 7, 2000	7/7/00 4:33 PM
The_InfoWorld_Scoop@bdcimail.com	THE INFOWORLD SCOOP P.M. EDITION: Friday, July...	7/7/00 3:53
ComputerPREP, Inc.	ProsoftTraining.com acquires ComputerPREP	7/7/00 2:41
Computerworld_Daily@Computerworld.com	Airline ticketing Web site names CEO	7/7/00 12:14
The_InfoWorld_Scoop@bdcimail.com	THE INFOWORLD SCOOP A.M. EDITION: Friday, July...	7/7/00 9:12
SupportRepublic NetNote	Linux users: Upgrade to Helix Gnome!	7/7/00 2:55
WirelessWorld@bdcimail.com	EPHRAIM SCHWARTZ: "Wireless World" from InfoWo...	7/6/00 7:33
Computerworld_Daily@Computerworld.com	Web privacy organization seeks to block Toysmart sale	7/6/00 5:17
The_InfoWorld_Scoop@bdcimail.com	THE INFOWORLD SCOOP P.M. EDITION: Thursday, ...	7/6/00 4:01
CIO	The CIO Insider - July 5, 2000	7/6/00 2:11
SWYNK.COM	SWYNK.COM: Here's What's New! (7/6/00)	7/6/00 12:09
Computerworld_Daily@Computerworld.com	U.S./Europe privacy deal sent back for more talks	7/6/00 11:55

From: cio@update.cio.com To: djones@vms.tarleton.edu
Subject: The CIO Insider - July 7, 2000

July 7, 2000

The CIO Insider: Your Guide to What's New on CIO.com

Ask the Author: Read an excerpt from Geoffrey Moore's new book, "Living on the Fault Line: Managing Shareholder Value in the Age of the Internet," and question Moore about his writing at
http://www2.cio.com/books/bv_asktheauthor.cfm?ID=3

sent from many clients to a central server, which re-routes the mail to its intended destination.

With this type of e-mail program, the user stores all information (e.g. messages, electronic address book) on the computer's hard drive at the user's home or office. In most cases, when these programs download the messages from the mail server, the files are deleted from the mail server. These programs are extremely user friendly and may function much like a word processor (e.g., spell checker, formatting) and contain numerous file management features (e.g., filters, ability to handle multiple e-mail accounts). See this chapter's companion web site for links to additional information concerning off-line mailers.

However, despite the functionality of off-line mail programs, they do provide some significant drawbacks. First, storing e-mail messages on the user's computer hard drive can "consume" significant storage space. It is easy to fill a hard drive with unwanted/unneeded e-mail messages. Second, the stored "e-mail" can only be accessed from the user's computer. Therefore, if the e-mail messages were stored on the hard drive of a faculty member's home computer, he or she would probably not be able to access this information from his or her office computer. Third, if the faculty member's local hard drive "crashes" (i.e., data cannot be recovered because of a disk error) and he or she has not created a back-up of the data, then all e-mail messages are lost. So it becomes important to have "back-up" for a local computer hard drive that stores e-mail messages.

On-Line Mailers

On-line mailers are probably less common than off-line mailers and are used primarily by people who want e-mail access but do not own a

BEST COPY AVAILABLE

personal computer. With this type of e-mail program, all information (e.g., messages, address book) remains on the mail server. Many on-line mail providers will limit the amount of storage space (i.e., number of messages) on the mail server that has been allocated to an individual. Additionally, these programs tend to have fewer features when compared to e-mail clients (e.g., spell checker). A large number of the "free" e-mail providers use on-line mailers. One provider of free e-mail that utilizes an on-line mailer is Microsoft® Hotmail™. According to Microsoft Corporation (2000), Hotmail™ is a

> Web-based e-mail provider, which means you can send and receive messages from any computer connected to the Internet. You can use Hotmail from home, work, school, an Internet café, a friend's house or any other computer in the world with an Internet connection. Your messages are stored in a central location, so your Inbox will always be up to date. This is great for people who use more than one computer, travel frequently, or don't even own a computer.

Yet, despite the more limited functionality of on-line mailers they do provide some significant advantages. First, storing e-mail messages on the mail server instead of on the local computer can "free up" storage space. Second, if the mail server crashes, most organizations have regular back-up procedures so that a student's messages will not be lost.

Generally an off-line mailer will probably provide the user with the most features and ease of use. However, if an off-mailer is not an option for a student, many of the on-line mailers can provide students with adequate levels of e-mail access in face-to-face and distance learning courses.

Listserv

Most e-mail communications are one-to-one or one-to-few (e.g., 2 to 10 people) interactions. In these interactions, the user will individually enter the e-mail address of each message recipient or select the recipient's e-mail addresses from an electronic address book that may be included in the e-mail program. Nonetheless, if a faculty member wants to use e-mail as a method of communicating with his or her class on a regular basis throughout the course, the faculty member may want to talk with the campus computing resources staff about establishing a listserv for the course. *Internet.com®* (2000) defined a listserv as:

> an automatic mailing list server . . . . When e-mail is addressed to a LISTSERV mailing list, it is automatically broadcast to everyone on the list. The result is similar to a newsgroup or forum, except that the messages are transmitted as e-mail and are therefore available only to individuals on the list.

In order for a listserv to "add value" to a course, five elements are necessary:

1. Prior to the beginning of the course the counselor educator needs to make arrangements with the campus computing staff to set-up a class listserv. If a faculty member is going to use a listserv in multiple courses, it is important to make sure that each course has its own listserv.

2. All members of the class must have an e-mail address.

3. These students' e-mail addresses must be added to the listserv for the appropriate class. Either the faculty member can "subscribe" (i.e., add) each student's e-mail address to the class

listserv or have each student subscribe to the class listserv from his or her own e-mail account.

4. It is important to encourage students to check their e-mail on a regular basis (e.g., daily). Also, the faculty member needs to model this behavior for the students. If students do not consistently check their e-mail, the information received from the listserv will be of little help to them.
5. It is imperative that the counselor educator contribute to the course listserv with reminders, upcoming events of interest, and so forth. Faculty members should encourage students to participate with questions, comments, or ideas.

Netiquette

Rinaldi (1998) defined netiquette as "prescribed social behavior and manners on computer networks via an electronic medium." To some degree a faculty member can attempt to establish a specific set of "norms" for his or her class. In reality, about the best that many faculty members can hope to achieve is having students adhere to a more general set of "common sense" protocols.

However, if it is the intent of the faculty member to utilize e-mail as an instructional tool, it may be necessary to establish a very clear set of expectations for the use of e-mail within the context of the course. This will be especially important if e-mail will be used by students for submitting assignments.

Porter (1997) identified ten rules of composition and etiquette for faculty members and students to use when e-mail is an instructional tool.

1. Keep the message short.
2. Get to the point.
3. Be polite.
4. Write a coherent, grammatically correct message.
5. Avoid the cutesies.
6. Know where you're sending the message.
7. Make sure that the receiver knows how to send you a return message.
8. Give people time to respond.
9. Know the protocol for the group, if you're sending to more than one person simultaneously.
10. Give some specific cues as to your attitude, priority of your message, and so forth. (pp. 112-113)

Boettcher and Conrad (1999) offered some additional specific suggestions for a faculty member when using e-mail.

1. Do not expect all students to read and participate successfully in your class discussion list during the first week of the semester.
2. Do not be vague about the names of assignments.
3. Do not be available to your students all the time.
4. Do not assume that electronic mail is received or read in any specific timeframe.
5. Do not structure the communication flow in a course so that you are the hub of all communications.

6. Do not forget to provide feedback and evaluation of student progress and learning.
7. Do not put anything in your student correspondence that you would not want to see on the front page of a local or national newspaper. (pp. 95 – 97)

Managing Mail

If a faculty member is going to use e-mail to support face-to-face and distance learning courses, one of the first tasks he or she needs to attend to is developing a system for managing e-mail. Not having a system for managing e-mail would be analogous to a faculty member keeping every piece of paper in his or her office in one manila file folder.

Many faculty members have been using e-mail for several years, but have not implemented a system for maintaining the messages. If students are submitting assignments via e-mail and receiving feedback from the faculty member via e-mail, it is necessary that these messages be maintained for quick retrieval in case of a question concerning a student's grade.

Delete Command

One of the easiest ways to reduce the number of messages that need to be managed is to use the "delete" key. The faculty member needs to ask the question, "Do I really need to save this information"? If it is not needed, delete it. Many e-mail programs do not permanently remove messages from the computer when the messages are deleted. Rather, in these situations the faculty member needs to "empty the trash" within the e-mail program in order to permanently purge the deleted messages.

Folders

Most e-mail programs allow the user to create folders or directories for saving messages. A faculty member should use the folders to organize e-mail in the same way that he or she would use manila file folders to organize paper correspondence. For example, one of the authors uses the following system:

1. Each course has a folder containing the semester, the course prefix, and the course number (e.g., 01A-CNSL5503). At this author's institution this code would indicate that the course is being taught during Spring 2001 (i.e., 01A) and the course is identified as CNSL 5503.
2. Within each course folder, create subfolders. There are two primary methods for organizing these subfolders. First, some faculty members organize subfolders based on assignments (e.g., Assign01-Introduction, Assign02-Role-of-Counselor). In this system all of the student assignments related to the "Role of the Counselor" would go into the same folder. Second, some faculty members organize subfolders based on individual students (e.g., Albrecht_A, Jones_D). In this system, all of the student assignments submitted by Albrecht would go into her folder and all of the assignments submitted by Jones would go into his folder.

Subject Lines

One feature of e-mail messages is the ability to include information on the subject line of the message. Faculty members should model appropriate use of the subject line when sending messages to students. Also, a faculty member should encourage students to make appropriate use of a subject line. Both of the authors remind students that when someone receives a high volume of e-mail, appropriate subject lines can assist the individual in prioritizing the order for reviewing messages. To illustrate, one method used by one of the authors for having students submit assignments requires the student to include in the subject line the course number, assignment number, assignment name, and his or her user name in a specified format (e.g., CNSL5503-Assign02-Jones_D). Although this may appear to be rather rigid, this process can increase a faculty member's ability to respond to and organize e-mail messages.

Filters

Filters are available in many e-mail programs. This feature allows a user to automate the message filing process. When a user establishes an e-mail filter, it directs the program to apply a specified set of criteria to the handling of a message. For example, on the campus of the authors, the food service manager sends a message to all faculty members concerning the menu in the dining hall. One of the authors decided this is unneeded information, and has established a filter that automatically deletes any message that meets both of the following criteria:

1. The "From" field contains the e-mail address of the manager.
2. The "Subject" field contains the text "Dining Hall Menu."

This same approach can be used for filtering student assignments into the appropriate folders and subfolders. As an example, any message containing the text "CNSL5503-Assign02" can automatically be filtered into the subfolder "Assign02-Role-of-Counselor" of the folder "01A-CNSL5503."

Attachments

Rather than having students submit responses to assignments within the body of an e-mail message, many faculty members prefer to receive these assignments in the form of a word processing document attached to an e-mail message. This approach has several advantages.

1. Using a word processing application, the student has more control over formatting. Therefore, if part of a student's grade for an assignment was related to the student's ability to demonstrate APA stylistic guidelines, this would be easier for the student to demonstrate when using a word processing application rather than placing the text within the body of the e-mail message.
2. Many word processing applications allow a user to place electronic comments within a document. In this way a faculty member can open a student's word processing document and place electronic feedback on the document in much the same way that he or she would "mark up" a student's printed assignment. According to the Microsoft Corporation (1999b):

> A comment is a note or an annotation that an author or reviewer adds to a document.
>
> The comment feature inserts a comment marker in hidden text format at the insertion point and displays a comments pane in which to enter comments. The comment marker contains your initials and a number, for example [INT1].
>
> You can also have Word highlight the comment markers in yellow, and

have a ScreenTip appear containing the text and creator of the comment, when you rest the mouse pointer over the comment marker.

Word 97 also includes a Reviewing toolbar that contains all the tools for working with comments. To display this toolbar, point to Toolbars on the View menu, and then click to select Reviewing.

Once this electronic feedback is added to the document, it can be returned to the student via e-mail.

However, working with attachments also has certain disadvantages. Three of the most significant disadvantages include:

1. It is less likely to acquire a computer virus from an e-mail message that does not contain an attachment, but students inadvertently can include computer viruses with e-mail attachments. This means that before opening e-mail attachments, it is highly important that the faculty member's computer contains virus protection software and that the software application scans these attachments for viruses before they are opened. Moreover, Boettcher and Conrad (1999) specified that it is essential to "update your virus protection regularly and often" (p. 98).
2. Many students will have trouble sending files as attachments due to two primary reasons. First, the student may not be able to "figure out" how to use his or her e-mail program to send attachments. Second, if the student is using an on-line mailer, the file space allocated to the student may not be large enough to include the attachment with the message. For example, a research paper containing several charts that was saved as a word processing document could be a fairly large file (e.g., 2MB). Some of the "free" e-mail providers do not permit large files (e.g., any file over 1MB) to be sent using their system.
3. Students will sometimes save files attached to e-mail messages in formats that cannot be opened by the faculty member. For example, if a student produces an annotated bibliography concerning child sexual abuse using AppleWorks™ 6 or DavkaWriter™ 2001, the file formats created by these applications cannot be opened using Microsoft® Word™. For this reason, some campuses will have a set of standards for submitting word processing documents electronically (e.g., rich text format). According to the Microsoft Corporation (1999a):

> The Rich Text Format (RTF) Specification provides a format for text and graphics interchange that can be used with different output devices, operating environments, and operating systems. RTF uses the American National Standards Institute (ANSI), PC-8, Macintosh, or IBM PC character set to control the representation and formatting of a document, both on the screen and in print. With the RTF Specification, documents created under different operating systems and with different software applications can be transferred between those operating systems and applications.

If the campus does not have a standard, the faculty member may want to establish a standard for his or her course. If standards are established it is important to include this information in the course syllabus.

Templates

One method for saving time is developing templates and other similar tools for providing timely feedback to students. These templates can be extremely effective in grading assignments that have been submitted electronically.

In illustration, a faculty member has developed an evaluation rubric for a research paper that contains the following elements:

- Title Page (5 points)
- Abstract (5 points)
- Content of Text (50 points)
- Application of APA (20 points)
- References (15 points)
- Appendixes (5 points)

He or she could copy and paste this rubric into the body of the e-mail message and enter comments/grades using this rubric.

Tips for Getting Started

Using e-mail to support face-to-face or distance learning courses can be a "value added" experience for students. However, if a faculty member is not careful in his or her approach to using e-mail in a course, the volume of e-mail messages can quickly become overwhelming. Therefore, in addition to the concepts presented in the previous sections of this chapter concerning netiquette and managing mail, the authors offer the following additional suggestions:

1. Advise students to use the listserv for general course questions and issues that appear to be of interest or use to other students as well as oneself. This allows the faculty member to respond back to the list and answer the same question for all students. If these types of general questions are sent individually to the faculty member and responded to individually, a faculty member can end up answering the same question twenty or more times.

2. It is important for the faculty member to tell students in advance what type of response "turn-around" time they can expect from inquiries to the faculty member (e.g., 48 hours). It is also important that the faculty member respond within this timeframe.

3. As much as possible, encourage students to answer each other's questions. For example, if a student posts a question to the listserv asking when an assignment is due, provide the other students with an opportunity to respond.

4. In order to reduce the amount of extraneous e-mail that is received and to encourage student research abilities, a faculty member may want to implement the concept of "three then me." One of the authors has implemented this concept in one of his courses. This concept suggests that the class be told at the beginning of the semester that each student should not contact the faculty member with a question via e-mail until the student has attempted to locate the answer to this question in three locations and has been unable to obtain an answer. This policy does two things. It reduces the amount of extraneous e-mail (e.g., When is the final exam?)

and it encourages students to learn to use the Web as a research tool. This policy also requires that the student identify in the e-mail message the three sources that he or she used in an attempt to obtain the information. In this way the policy provides an opportunity for the faculty member to give the student feedback concerning his or her Web research skills.

Conclusion

This chapter detailed some of the major considerations with which a faculty member needs to be concerned when using e-mail in instruction. These issues included (a) identifying e-mail alternatives, (b) netiquette, (c) managing e-mail, and (d) tips for getting started with e-mail in an instructional setting.

When used in conjunction with the information presented in this chapter, the following "E-Mail Checklist" should assist a faculty member in optimizing the use of e-mail. For additional information pertaining to these issues, see the chapter's companion web site at:

http://www.albrecht-jones.com/distance/12

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E-Mail Checklist

Course Title: ____________________

	Yes	No	N/A	Comments
Course correspondence organized into folders				
Use of subject line protocols provided to students				
Mail automated filtering criteria established				
Use of attachment protocols provided to students				
Electronic templates developed for grading				
Use of listserv protocols provided to students				
Response turn-around time communicated to students				
"Three then me" or similar protocol provided to students				
Notes				

Chapter Thirteen
Web Conferencing

> The widespread use of computer conferencing for instructional purposes, both as an adjunct to and a replacement for the traditional classroom, has encouraged teachers and students alike to approach teaching and learning in ways that incorporate collaborative learning . . . . Discussion and dialog between instructor and students and among students is a key feature of computer conferencing. (Murphy & Collins, 1997)

Computer conferencing (i.e., web conferencing) technologies can provide an excellent set of both synchronous and asynchronous tools. These tools support the teaching and learning process in face-to-face and distance learning settings.

Software Alternatives

Numerous companies provide web conferencing solutions. These range from very simple asynchronous bulletin board tools (e.g., Yahoo!® Groups™) and synchronous "chat-like" tools (e.g., Microsoft Network® Instant Messenger™) to products that are supposed to provide "turn key" online course environments. These turn key environments include many features in addition to bulletin board and chat capabilities (e.g., whiteboards, gradebooks, calendars).

A faculty member's options for web conferencing systems may be more limited in contrast to (a) presentation graphics packages, (b) HTML editors, and (c) e-mail clients. Most of the "medium" to "high end" web conferencing tools contain two components: (a) the server and related server software and (b) the client software. The purchase of a web conferencing system may also entail purchase of significant computer hardware to support the tool. Cost and support issues are some of the primary factors involved in the decision to adopt specific web conferencing tools. Generally, decisions concerning the adoption of web conferencing systems will be made on a campus-wide basis. Many campuses will select only one or two web conferencing systems for use by faculty members and students.

Some packages focus primarily on providing integrated web conferencing services (e.g., O'Reilly® WebBoard™, Microsoft® NetMeeting™) such as asynchronous bulletin board tools and synchronous chat tools. For links to information concerning various web conferencing packages, see this chapter's companion web site.

Curran and Devin (2000) discussed two of the currently popular packages for providing turn key online learning environments. The "heart" of both packages and most other online learning environments is a comprehensive set of web conferencing tools.

> Web Course Tools (WebCT) and Blackboard are software for the management of Web-based educational environments. Both of these packages can be used to create entire online courses, or to simply publish materials that supplement existing courses. WebCT and Blackboard provide the following tools: bulletin board, online chat, online quizzes, calendar, self-evaluation,

> threaded discussions, synchronous communication (real-time chat and whiteboard), assessment tools, and collaborative work groups.

Several other companies provide products similar to WebCT® and Blackboard® (e.g., eInstruction® CyberClass®, eCollege.com®). For links to information concerning various online learning environments, see this chapter's companion web site.

Working with Bulletin Boards

One of the easiest web conferencing tools to use is a bulletin board. According to Mantyla and Gividen (1997), these asynchronous tools provide opportunities where "learners and instructors ask a question or make a remark by posting . . . to a bulletin board in much the same way that they would pin a note on a cork board. Everyone in the class can see the message and respond" (p. 46).

Initially, a bulletin board sounds like an e-mail listserv. On one level it has some of the same features as a listserv (i.e., one-to-many electronic communications). However, most bulletin board systems offer more features than an e-mail listserv. Specifically, the Northeast and Islands Regional Educational Laboratory at Brown University (1999) discerned the following differences between a listserv and a bulletin board (i.e., web-based discussion system):

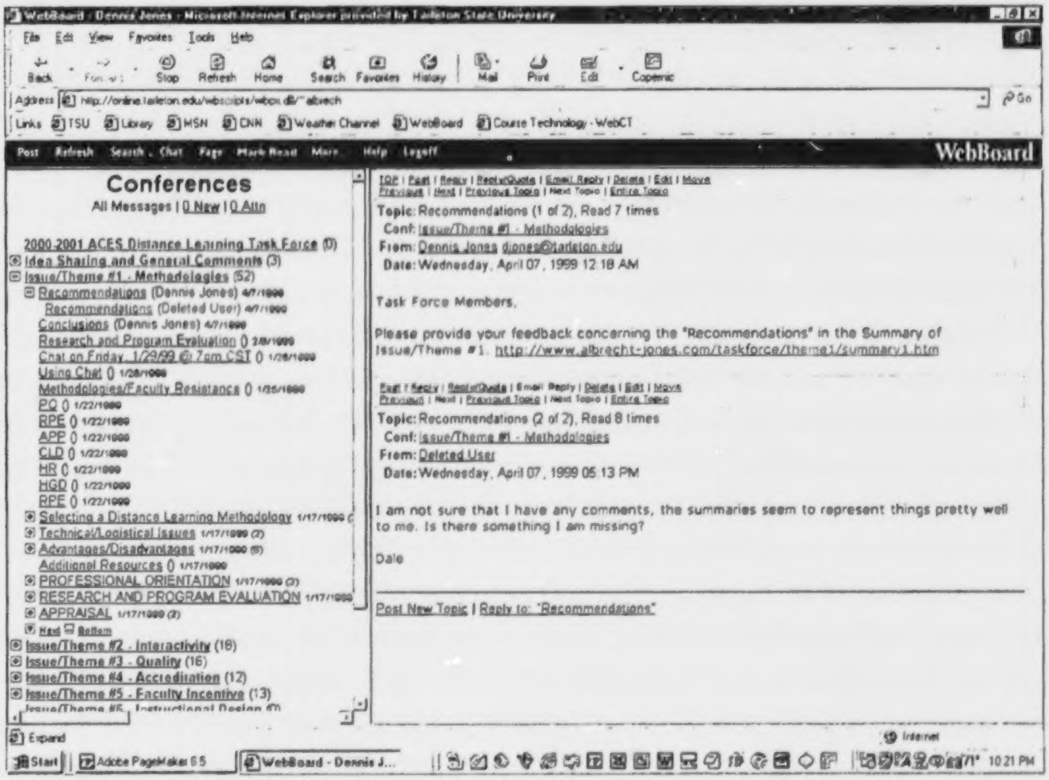
> One drawback of email and mailing list server discussions is that they organize discussions chronologically. This type of organization is fine for many short discussions or written materials, but most discussions aren't linear and well-organized. One comment can generate ideas on many different tangents. In this case, you may want to organize the discussion by topic. But that doesn't always work well; what if one message in a discussion has ideas that relate to several different parts of the discussion?
>
> Topic-oriented and threaded discussion systems attempt to respond to this problem by keeping an archive and allowing different ways of organizing the discussion. (p. 43)

Someone needs to assume the key role in using a bulletin board system. In most situations it will be the faculty member who will have responsibility for maintaining and organizing the bulletin board.

The authors believe one of the most powerful features of a bulletin board in the teaching and learning process is the opportunity for students to reflect prior to responding. This allows the student to organize his or her thoughts prior to taking a position on an issue. Abrami and Bures (1996) pointed out that:

> Asynchronous communication may encourage the use of reflection rather than spontaneous thinking. Reflection allows the message sender time to consider alternative solutions and ways of presenting evidence. CSCL [computer-supported collaborative learning] presently encourages the increased use of written communication, perhaps enhancing this mode of expression. In addition, the message receiver has a record of the communication, which, as a result, may be better pondered, more critically evaluated, and more easily acted on. (p. 39)

Despite the unlimited potential of bulletin board technology, it will be no more successful than the faculty member who is integrating it into his or her course. Generally, the faculty member will take on the role of moderator of the course bulletin board, but this task could also be delegated to designated student group leaders.


WebBoard
Post
Refresh
Search
Chat
Page
Mark Read
More
Help
Logoff
Conferences
All Messages | 0 New | 0 Attn
2000-2001 ACES Distance Learning Task Force (0)
Idea Sharing and General Comments (3)
Issue/Theme #1 - Methodologies (52)
Recommendations (Dennis Jones)
Recommendations (Deleted User)
Conclusions (Dennis Jones)
Research and Program Evaluation ()
Chat on Friday, 1/29/99 @ 7pm CST ()
Using Chat ()
Methodologies/Faculty Resistance ()
PO ()
RPE ()
APP ()
CLD ()
HR ()
HGD ()
RPE ()
Selecting a Distance Learning Methodology
Technical/Logistical Issues
Advantages/Disadvantages
Additional Resources ()
PROFESSIONAL ORIENTATION
RESEARCH AND PROGRAM EVALUATION
APPRAISAL
Issue/Theme #2 - Interactivity (18)
Issue/Theme #3 - Quality (16)
Issue/Theme #4 - Accreditation (12)
Issue/Theme #5 - Faculty Incentive (13)
Expand
Start
Adobe PageMaker 6.5
WebBoard - Dennis J...

Topic: Recommendations (1 of 2), Read 7 times
Conf: Issue/Theme #1 - Methodologies
From: Dennis Jones djones@tarleton.edu
Date: Wednesday, April 07, 1999 12:18 AM

Task Force Members,

Please provide your feedback concerning the "Recommendations" in the Summary of Issue/Theme #1. http://www.albrecht-jones.com/taskforce/theme1/summary1.htm

Topic: Recommendations (2 of 2), Read 8 times
Conf: Issue/Theme #1 - Methodologies
From: Deleted User
Date: Wednesday, April 07, 1999 05:13 PM

I am not sure that I have any comments, the summaries seem to represent things pretty well to me. Is there something I am missing?

Dale

Post New Topic | Reply to: "Recommendations"

The Northeast and Islands Regional Educational Laboratory at Brown University (1999) shared the following:

> The moderator's role is key to effective electronic collaborations. He or she has to be on top of the subject matter and conversation, recruit and sustain participation, guide the discussion, modify the pace when needed, interject salient comments and feedback promptly, restate the main themes, introduce new topics, reintroduce a previous point that was never fully explored, offer instructions, and keep track of who has participated and what each member has said. The moderator (also known as a facilitator) needs to be aware of members who have not contributed and draw them out. (p. 33)

Preece (2000) has offered some specific suggestions for moderators:

- Suspend personal opinion.
- Know the players [students].
- Foster candor and trust.
- Maintain a constructive tone.
- Foster a group dynamic.
- Think ahead of the group.
- Form subgroups.
- Foster group ownership. (pp. 293-294)

In addition to the ideas suggested by the Northeast and Islands Regional Educational Laboratory at Brown University (1999) and Preece (2000), the authors make the following recommendations for moderating bulletin boards:

- **Make it easy for students to be successful.** The authors recommend that at the beginning of the semester each student post a short autobiography. Also, the faculty member may want to make the initial biographic posting for two purposes. First, it provides a method for students to learn about the faculty member. Second, it provides a model for students in terms of message tone and structure.
- **Provide prompts that encourage discussion.** If later in the course, students are going to be responsible for this task, it is especially important for the faculty member to model this practice at the beginning of the course.
- **Keep the postings organized.** At times, especially early in the semester, students will have difficulty posting responses in appropriate locations. When this happens, a faculty member can assist the student by moving the response to the correct location.
- **The rules of e-mail netiquette apply to bulletin boards.** Therefore, encourage students to apply these ideas when posting.
- **Allow time for students to reflect.** The authors recommend at least three or four days for an initial posting on a topic and two or three more days for an initial follow-up response based on other student postings.

Working with Chat

According to Collins and Murphy (1997), the synchronous nature of chat:

> Fosters immediacy and a sense of social presence – someone is really "out there" on the other side of the computer screen. This realization can set the stage for the development of a sense of community among learners. Chat is useful for brainstorming and decision-making and the discussion of timely issues. (p. 44)

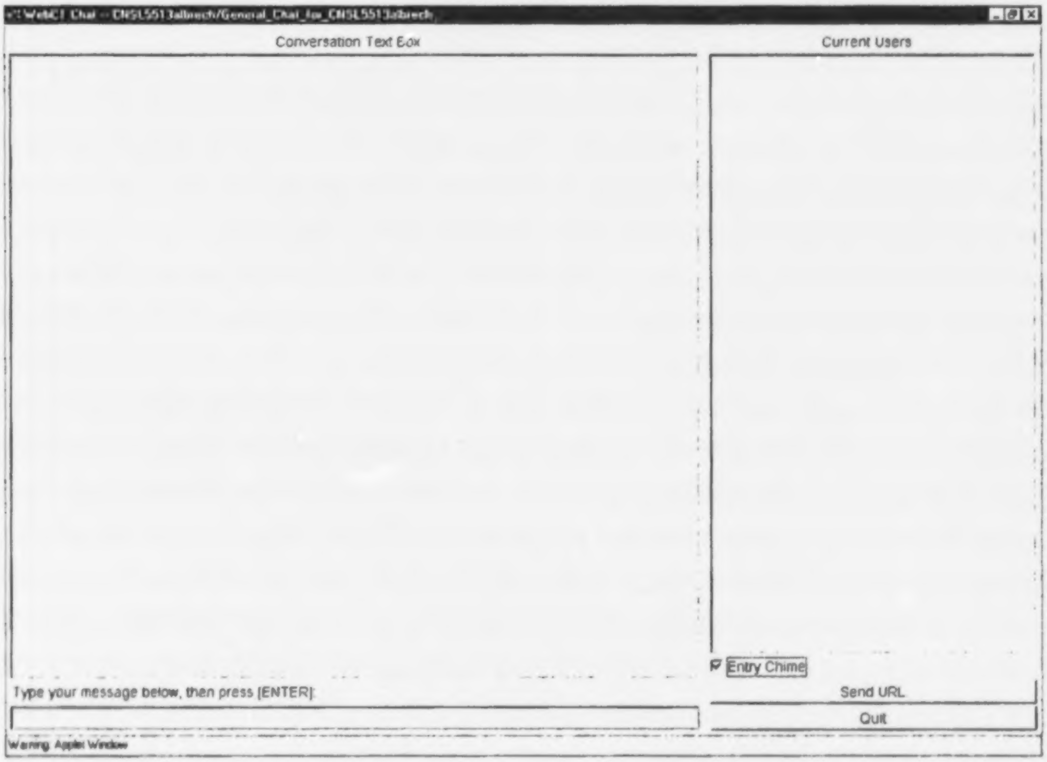
Thus in some situations, chat may be an important component of a course. Both students and faculty members need to develop skills in using this tool. Given the "real-time" nature of these interactions, one of the most important skills for a chat user is the ability to type. According to Bull, Bull, Garofalo, and Sigmon (1998):

> Online typing is an especially slow way to communicate. Although some readers might type as fast as 200 to 300 words per minute, the average typist manages just 20 to 30. As a result, a participant could leave . . . and return several minutes later without missing much. (p. 37)

Despite this problem and the issue of requiring students to be at a computer at a specified time, chat can be an effective instructional tool. Moshiniskie and Novelli (1998) shared the following observations for working with chat:

- Experienced chatters tend to do better.
- Keeping the discussion focused and on track takes a lot of work for the leader.
- Use synchronous chat sessions to help groups develop an immediate consensus.
- Give participants a time limit to come up with an answer.
- Remember scheduling may be different when it involves different time zones.

- Unlike a one-sided teacher-led lecture, everyone gets involved in the dialog which can become more Socratic.
- Synchronous chat sessions are especially good for brainstorming and other activities that require spontaneity (teamwork, planning sessions, etc.).
- Synchronous chat sessions are for discussions that require a quick turn around rather than extended discussions.
- When learners really get involved in a chat session, this compliments the so-called "flow" experience recommended by Csikszentmihalyi in Flow (1977).
- Chat sessions encourage a dialog momentum (constant exchange of ideas).
- Chat sessions expand traditional boundaries of classroom to international resources (the world is smaller).
- Learners can discuss, examine, defend, and practice new concepts online (experiential learning).
- Supportive feedback from instructor (informating up) can guide the learning.
- Learners can be exposed to widely divergent points of view, lifestyles, and belief systems. (p. 38)


WebCT Chat -- CNSL5513albrech/General_Chat_for_CNSL5513albrech
Conversation Text Box
Current Users
☑ Entry Chime
Type your message below, then press [ENTER]:
Send URL
Quit
Warning: Applet Window

In addition to the ideas suggested by Moshiniskie and Novelli (1998), the authors make the following recommendations pertaining to the use of chat:

- **Prepare discussion prompts in advance using a word processor.** In lieu of typing the prompts, copy and paste the prompts from the word processor to the chat tool.
- **Keep group meetings small (5 to 6 students).** This allows ample opportunity for all students to interact.
- **Review and post to the course web site the transcripts of all chat sessions.** This provides the faculty member and students with a way to review the issues discussed.
- **Teach student groups how to meet via chat without the instructor.** This encourages student-to-student interaction.

Conclusion

This chapter explored some of the major issues and concerns of a faculty member when using web conferencing in instruction. These issues included (a) identifying software alternatives, (b) working with bulletin boards, and (c) working with chat.

When used in conjunction with the information presented in this chapter, the following "Web Conferencing Checklist" should assist a faculty member in optimizing the use of web conferencing. For additional information concerning these issues, see the chapter's companion web site at:

http:// www.albrecht-jones.com/distance/13

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Web Conferencing Checklist

Course Title: ____

Bulletin Boards	**Yes**	**No**	**N/A**	**Comments**
Prompts provided to encourage discussion				
Postings are organized				
Rules of netiquette protocols provided to students				
Students are provided time to reflect				
Chat	**Yes**	**No**	**N/A**	**Comments**
Prompts are prepared in advance				
Students organized into small groups				
Transcripts of the chat posted on web site				
Notes				

References

Abrami, P.C., & Bures, E.M. (1996). Computer-supported collaborative learning and distance education. *American Journal of Distance Education, 10*(2), 37-42.

Ackerman, D. (1999, October 12). Re: Class size for online learning. *IFETS Mailing List Archive.* Retrieved October 15, 2000 from the World Wide Web: http://ifets.gmd.de/past_archives/archiv_260899_250200/0306.html

Alden, J. (1998). *A trainer's guide to web-based instruction: Getting started on intranet- and Internet-based training.* Alexandria, VA: American Society for Training and Development.

Althauser, R., & Matuga, J. (1998). On the pedagogy on electronic instruction. In C.J. Bonk & K.S. King (Eds.), *Electronic collaborators: Learner-centered technologies for literacy, apprenticeship, and discourse* (pp. 183-208). Mahwah, NJ: Lawrence Erlbaum.

American Council on Education. (2000). *Developing a distance education policy for 21st century learning.* Washington DC: Author. Retrieved September 17, 2000 from the World Wide Web: http://www.acenet.edu/washington/distance_ed/2000/03march/distance_ed.html

American Counseling Association. (1995). *ACA code of ethics and standards of practice.* Alexandria, VA: Author. Retrieved December 1, 2000 from the World Wide Web: http://www.counseling.org/resources/codeofethics.htm

American Productivity and Quality Center. (n.d.). *Benchmarking terms.* Houston, TX: Author. Retrieved December 1, 2000 from the World Wide Web: http://www.apqc.org/free/terms.cfm

American Psychiatric Association. (2000). *Diagnostics and statistical manual of mental disorders* (4th ed. - text revised). Washington, DC: Author.

Applied Research Laboratory at the Pennsylvania State University. (n.d.). *Definitions of instructional design.* University Park, PA: Author. Retrieved December 1, 2000 from the World Wide Web: http://quark.arl.psu.edu/training/def-inst.html

Arends, R.I. (1997). *Classroom instruction and management.* New York: McGraw-Hill.

Association for Counselor Education and Supervision. (1999). *ACES guidelines for online instruction in counselor education.* Alexandria, VA: Author. Retrieved February 2, 2001 from the World Wide Web: http://filebox.vt.edu/users/thohen/acesweb/

Association for Counselor Education and Supervision Technology Interest Network. (1999). *Technical competencies for counselor education students: Recommended guidelines for program development.* Alexandria, VA: Author. Retrieved December 1, 2000 from the World Wide Web: http://filebox.vt.edu/users/thohen/competencies.htm

Association of College and Research Libraries. (2000). *Guidelines for distance learning library services.* Chicago, IL: Author. Retrieved January 12, 2001 from the World Wide Web: http://www.ala.org/acrl/guides/distlrng.html

Baker, M.H., & Stark, S. (1998). Connecting with distance students: Interaction and merging technologies. *Fourteenth Annual Conference on Distance Teaching and Learning* (pp. 483-489). Madison: University of Wisconsin System.

Bannan, B., & Milheim, W.D. (1997). Existing web-based instruction courses and their design. In B. H. Kahn (Ed.), *Web-Based Instruction* (pp. 381–387). Englewood Cliffs, NJ: Educational Technology Publications.

Batchelder, W., & Tompkins, C. (1999). An overview of HTML for distance education. *Fifteenth Annual Conference on Distance Teaching and Learning* (pp. 447-451). Madison: University of Wisconsin System.

Boaz, M., Elliott, B., Foshee, D., Hardy, D., Jarmon, C., & Olcott, D. Jr. (1999). *Teaching at a distance: A handbook for instructors.* Mission Viejo, CA: League for Innovation in the Community College.

Bobby, C.L., & Capone, L., III. (2000). Understanding the implications of distance learning for accreditation and licensure of counselor preparation programs. In J. W. Bloom & G. R. Walz (Eds.), *Cybercounseling and cyberlearning: Strategies and resources for the millennium* (pp. 361-377). Alexandria, VA: American Counseling Association.

Boettcher, J. V., & Conrad, R. (1999). *Faculty guide for moving teaching and learning to the Web.* Mission Viejo, CA: League for Innovation in the Community College.

Bonk, C.J., & Reynolds, T.H. (1997). Learner-centered web instruction for higher-order thinking, teamwork, and apprenticeship. In B. H. Kahn (Ed.), *Web-Based Instruction* (pp. 167–178). Englewood Cliffs, NJ: Educational Technology Publications.

Bostock, S.J. (1997). Designing web-based instruction for active learning. In B. H. Kahn (Ed.), *Web-Based Instruction* (pp. 225–230). Englewood Cliffs, NJ: Educational Technology Publications.

Brintnall-Peterson, M., & First, J. (1999). Creative use of the Web to support a national video satellite. *Fifteenth Annual Conference on Distance Teaching and Learning* (pp. 459-465). Madison: University of Wisconsin System.

Bull, G, Bull, G., Garofalo, J., & Sigmon, T. (1998). Virtual conferences. *Learning & Leading with Technology, 25*(5), 36-39.

Carabajal, K., Miller, D, & LaPointe, D. (1998). Legal terminology on the Internet. *Fourteenth Annual Conference on Distance Teaching and Learning* (pp. 83-88). Madison: University of Wisconsin System.

Carnevale, D. (1999, November 12). How to proctor from a distance. *The Chronicle of Higher Education*, p. A47.

Carnevale, D. (2000, September 8). Accrediting bodies consider new standards for distance-education programs. *The Chronicle of Higher Education*, p. A58.

Carr, S. (2000, April 7). Radcliffe turn to radio for distance education. *The Chronicle of Higher Education*, p. A48.

Center for Academic Integrity. (1999). *Fundamental values project*. Durham, NC: Duke University, Kenan Institute for Ethics. Retrieved September 8, 2000 from the World Wide Web: http://www.academicintegrtity.org/Values.asp

Center for Distance Learning Research. (1996). *Videoconferencing: A basic guide to teaching utilizing PictureTel and VTel videoconferencing equipment*. Bryan, TX: Author.

Clawson, T. (1995). *The role of assessment in counselor certification* (Report No. EDO-CG-95-5). Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED388885)

Clay, M., & Grover, R. (1995). Throw me a rope: A distance learning faculty guide. *Technology and Teacher Education Annual*. Retrieved October 19, 2000 from the World Wide Web: http://www.coe.uh.edu/insite/elec_pub/html1995/1614.htm

Clemons, S. (n.d.). What is a threaded discussion? *Text-based telecommunications*. Retrieved October 17, 2000 from the World Wide Web: http://vygotsky.ced.appstate.edu/hypertel/Threaded_Discussion.html

Collins, M.P., & Murphy. K.L. (1997). Reducing conversational chaos: The use of communication conventions in instructional electronic chats. *Thirteenth Annual Conference on Distance Teaching and Learning* (pp. 43-50). Madison: University of Wisconsin System.

Conger, S.A., & Mason, R.O. (1998). *Planning and designing effective web sites*. Cambridge, MA: Course Technology.

Cotton, K. (1991-1992). *Computer-assisted instruction*. School Improvement Research Series (Close-Up #10). Portland, OR: Northwest Regional Educational Laboratory. Retrieved November 20, 2000 from the World Wide Web: http://www.nwrel.org/scpd/sirs/5/cu10.html

Council for Accreditation of Counseling and Related Educational Programs. (1994). *The 1994 CACREP standards*. Alexandria, VA: Author. Retrieved July 18, 2000 from the World Wide: http://www.counseling.org/cacrep/cacrep_standards.htm

Council for Accreditation of Counseling and Related Educational Programs. (2000). *The 2001 CACREP standards*. Alexandria, VA: Author. Retrieved July 18, 2000 from the World Wide: http://www.counseling.org/cacrep/2001standards700.htm

Council for Higher Education Accreditation. (1998). *Assuring quality in distance learning: A preliminary review*. Washington, DC: Author.

Council for Higher Education Accreditation. (1999). The expanding universe of distance learning. *Distance Learning in Higher Education CHEA Update: Number Two*. Washington, DC: Author. Retrieved March 19, 2000 from the World Wide Web: http://www.chea.org/Commentary/distance-learning-2.cfm

Coursol, D., & Lewis, J. (n. d.). *Cybersupervison: Close encounters in the new millennium*. Greensboro, NC: ERIC Counseling and Student Services Clearinghouse. Retrieved September 6, 2000 from the World Wide Web: http://cybercounsel.uncg.edu/manuscripts/cybersupervision.htm

Crews, K.D. (1999). *Summary of U.S. Copyright Office report on distance education*. Indianapolis, IN: Copy Management Center, Indiana University-Purdue University Indianapolis. Retrieved September 10, 2000 from the World Wide Web: http://www.iupui.edu/~copyinfo/distedsum.html

Crump, R. E. (1928). *Correspondence and class-extension work in Oklahoma.* Durant, OK: Southeastern State Teachers College.

CTESC Web Services. (n.d.). *Definitions.* Retrieved October 22, 2000 from the World Wide Web: http://www.ctesc.net/definit.htm

Curran, K., & Devin, B. (2000). Helpmate: A multimedia web teaching framework. *First Monday, 5*(5). Retrieved October 23, 2000 from the World Wide Web: http://www.firstmonday.dk/issues/issue5_5/curran/

Cyrs, T. (with Conway, E. D.). (1997). *Teaching at a distance with merging technologies: An instructional systems approach.* Las Cruces: New Mexico State University.

Daniels, M. H., Tyler, J. M., & Christie, B. S. (2000). On-line instruction in counselor education: Possibilities, implications, and guidelines. In J. W. Bloom & G. R. Walz (Eds.), *Cybercounseling and Cyberlearning: Strategies and Resources for the Millennium* (pp. 303–317). Alexandria, VA: American Counseling Association.

Delafuente, J. C., Araujo, O. E., & Legg, S. M. (1998). Traditional lecture format compared to computer-assisted instruction in pharmacy calculations. *American Journal of Pharmaceutical Education, 62*(1), 62-66.

Dick, W., & Carey, L. (1996). *The systematic design of instruction* (4th ed.). New York: HarperCollins.

Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998).

Dirr, P. J. (1999). *Putting principles into practice: Promoting effective support services for students in distance learning programs.* Alexandria, VA: Public Service Telecommunications.

Distance Learning Dynamics. (1998). *Instructional strategies for distance learning environments focus: Interactive television.* Battle Creek, MI: Author.

Distance Learning Resource Network. (1995). *What is distance education?* Phoenix, AZ: Author. Retrieved November 8, 2000 from the World Wide Web: http://www.dlrn.org/library/dl/whatis.html

Doane, L., & Fuchs, J. (1998). Distance learning audio: Improvements and developments. *Fourteenth Annual Conference on Distance Teaching and Learning* (pp. 117-120). Madison: University of Wisconsin System.

Dooley, K., Edmundson, C., & Hobaugh, C. (1997). Instructional design: A critical ingredient in the distance education soup. In L. Korhonen (Ed.), *Fourth Annual Distance Education Conference Proceedings* (pp. 51-57). College Station: Texas A&M University.

Driscoll, M. P. (1994). *Psychology of learning for instruction.* Needham Heights, MA: Allyn & Bacon.

Edmundson, C. (1997). *An instructor's guide to distance education.* Austin, TX: VTEL Corporation.

Enghagen, L.K. (1997). New frontiers in copyright law. In L. Enghagen (Ed.), *Technology and higher education* (pp. 155-162). Washington, DC: National Education Association.

Fisher, G. (1983, November/December). Where CAI is effective: A summary of the research. *Electronic Learning*, 82-84.

Flynn, M., & Rutkosky, N. (2000). *Microsoft PowerPoint 2000.* St. Paul, MN: EMC Paradigm.

Franco-Berry, C.A., & Murphy, K.L. (2000). Trends in distance education: Moving toward web-based instruction. In R. Ham (Ed.), *Seventh Annual Distance Education Conference Proceedings* (pp. 53-56). College Station: Texas A&M University.

Fraser, J.H. (1999). Administrative issues associated with nursing degree programs offered by distance education. In J. Woosley & T. Adair (Eds.), *Sixth Annual Distance Education Conference Proceedings* (pp. 75-85). College Station: Texas A&M University.

Friscia, J. (1998). Instructional design considerations when video conferencing is the primary mode of delivery and instruction. *Fourteenth Annual Conference on Distance Teaching and Learning* (pp. 503-506). Madison: University of Wisconsin System.

Gagne, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of instructional design* (4th ed.). Orlando, FL: Harcourt Brace Jovanovich.

Gebhardt, J.H. (1999). Distance learning instructor training: A simple approach. *Fifteenth Annual Conference on Distance Teaching and Learning* (pp. 201-205). Madison: University of Wisconsin System.

Geisert, P. G., & Futrell, M. K. (2000). *Teachers, computers, and curriculum: Microcomputers in the classroom* (3rd ed.). Needham Heights, MA: Allyn & Bacon.

Gooch, J. (1998). *They blazed the trail for distance education.* Madison, WI: Distance Education Clearinghouse. Retrieved March 19, 2000 from the World Wide Web: http://www.uwex.edu/disted/gooch.htm

Gosselin, C. (1998). Teaching in control. *Fourteenth Annual Conference on Distance Teaching and Learning* (pp. 127-132). Madison: University of Wisconsin System.

Grealy, D.S. (1998). Web-based learning: Electronic library resources and instruction. *Fourteenth Annual Conference on Distance Teaching and Learning* (pp. 133-137). Madison: University of Wisconsin System.

Greenspun, P. (1999). *Philip & Alex's guide to web publishing.* San Francisco: Morgan Kaufmann.

Hall, B. (1997). *Web-based training cookbook.* New York: Wiley & Sons.

Hammon, D.L., & Albiston, S. K. (1998). *Completing graduate school long distance.* Thousand Oaks, CA: Sage.

Hanson, D., Maushak, N., Schlosser, C., Anderson, M., Sorenson, C., & Simonson, M. (1997). *Distance education: Review of the literature* (2nd ed.) Washington, DC: Association for Educational Communications and Technology.

Harper, G. (1998). *Fair use of copyrighted materials.* Austin, TX, University of Texas System. Retrieved July 25, 1999 from the World Wide Web: http://www.utsystem.edu/ogc/intellectualproperty/copypol2.htm

Herring, M.C., & Smaldino, S.E. (1998). *Planning for interactive distance education: A handbook.* Washington, DC: Association for Educational Communications and Technology.

Hill, J. R. (1997). Distance learning environments via the World Wide Web. In B. H. Kahn (Ed.), *Web-Based Instruction* (pp. 75–80). Englewood Cliffs, NJ: Educational Technology Publications.

Hirumi, A., & Bermúdez, A. (1996). Interactivity, distance education, and instructional systems design converge on the information superhighway. *Journal of Research on Computing in Education, 29*(1), 1-16.

Hollis, J. W. (Ed.). (1997). *Counselor preparation, 1996-98: Programs, faculty, trends* (9th ed.). Washington, DC: Taylor & Francis.

Hollis, J.W. (with Dodson, T.A.). (2000). *Counselor preparation, 1999-2001: Programs, faculty, trends* (10th ed.). Philadelphia, PA: Accelerated Development.

House, G., & Miller, S. M. (1998). The Reigeluth Elaboration Theory of instructional design applied to web-based course development. In K. Dooley (Ed.), *Fifth Annual Distance Education Conference Proceedings* (pp. 83-88). College Station: Texas A&M University.

Institute for Higher Education Policy. (1999). *What's the difference? A review of contemporary research on the effectiveness of distance learning in higher education.* Washington, DC: Author.

Institute for Higher Education Policy. (2000). *Quality on the line: Benchmarks for success in Internet-based distance education.* Washington, DC: Author.

Internet.com. (1999-2000). *E-mail client.* Retrieved October 22, 2000 from the World Wide Web: http://webopedia.internet.com/TERM/e/e_mail_client.html

Internet.com. (2000). *Listerv.* Retrieved October 22, 2000 from the World Wide Web: http://www.zdwebopedia.com/TERM/L/Listserv.html

Jencius, M. (2000). *Technology-enhanced instruction: Developing your digital vision.* Greensboro, NC: ERIC Counseling and Student Services Clearinghouse. Retrieved June 12, 2000 from the World Wide Web: http://cybercounsel.uncg.edu/manuscripts/jencius.htm

Kolloff, M. A., Kolloff, F., & Thomas, J. (1999). Instructional design models and distance education. *Fifteenth Annual Conference on Distance Teaching and Learning* (pp. 283-289). Madison: University of Wisconsin System.

Krein, T. J. & Maholm, T. R. (1990, August). CBT has the edge in a comparative study. *Performance and Instruction*, 22-24.

Lebanon Community School Corporation. (1996). *The teacher's distance education handbook.* Lebanon, IN: Author. Retrieved December 31, 2000 from the World Wide Web: http://education.indiana.edu/~jsiantz/lebanon/dedoccam.htm

Lemay. L. (with revisions by Tyler, D.). (2000). *SAMS teach yourself web publishing with HTML 4 in 21 days professional reference edition* (2nd ed.). Indianapolis, IN: SAMS.

Lennon, C., & Payne, H. (1997). A comparison between IVT and resident versions of FAA's quality assurance course. *Thirteenth Annual Conference on Distance Teaching and Learning* (pp. 181-186). Madison: University of Wisconsin System.

Maitland, C. (1998). *Intellectual property policies.* Washington, DC: National Education Association. Retrieved September 30, 2000 from the World Wide Web: http://www.nea.org/he/intelpwp.pdf

Mantyla, K., & Gividen, J.R. (1997). *Distance learning: A step-by-step guide for trainers.* Alexandria, VA: American Society for Training & Development.

Martin, B, Moskal, P, Foshee, N, & Morse, L. (1997). So you want to develop distance education course: Here's how to design and manage a successful one. *American Society for Engineering Education PRISM, 5*, 18-22.

McCormack, C., & Jones, D. (1998). *Building a web-based education system.* New York: John Wiley & Sons.

Metcalf, T. (1998). Distance education: The issues of faculty time. In K. Dooley (Ed.), *Fifth Annual Distance Education Conference Proceedings* (pp. 125-127). College Station: Texas A&M University.

Microsoft Corporation. (1999a). *Rich Text Format (RTF) Specification, version 1.6.* Retrieved December 31, 2000 from the World Wide Web: http://msdn.microsoft.com/library/specs/rtfspec.htm

Microsoft Corporation. (1999b). *Using comments in Word 97.* Retrieved December 31, 2000 from the World Wide Web: http://www.microsoft.com/uk/support/focus/archive/month15/word97_comment.htm

Microsoft Corporation. (2000). *Hotmail: Why sign up?* Retrieved October 22, 2000 from the World Wide Web: http://lc1.law13.hotmail.passport.com/cgi-bin/dasp/hminfo_shell.asp?

Miller, G. E. (1997). Distance education and the emerging learning environment. *The Journal of Academic Librarianship, 23*(4), 319-321.

Moore, M.G. (1996). Editorial: Media options. *The American Journal of Distance Education, 10*(3), 1-3.

Moore, M. G. (1997). Lessons from history. *The American Journal of Distance Education, 11*(1), 1-5.

Moore, S.L., & Jackson, F. (1998). Dimensions and reflections of teaching and learning at a distance. In K. Dooley (Ed.), *Fifth Annual Distance Education Conference Proceedings* (pp. 143-145). College Station: Texas A&M University.

Moshinskie, J., & Novelli, N. (1998). *Instructional design primer for web-training.* (Available from Performance Improvement Technologies, Baylor University, Route 7 Box 288, Waco, TX 76705-9515).

Murphy, K.L., & Collins, M.P. (1997). Communication conventions in instructional electronic chats. *First Monday, 2*(11). Retrieved October 23, 2000 from the World Wide Web: http://www.firstmonday.dk/issues/issue2_11/murphy/

National Education Association. (2000). *A survey of traditional and distance learning higher education members.* Washington, DC: Author.

Naylor, S., & Hinchliffe, L.J. (1999). But we don't have a million dollars! Providing distance learning library services with limited budget and personnel. *Fifteenth Annual Conference on Distance Teaching and Learning* (pp. 493-497). Madison: University of Wisconsin System.

New England Association of Schools and Colleges Commission on Institutions of Higher Education. (1998). *Policy for the accreditation of academic degree and certificate programs offered through distance education.* Bedford, MA: Author. Retrieved September 10, 2000 from the World Wide: http://www.neasc.org/cihe/disted2.htm

North Central Association Commission on Institutions of Higher Education. (2000). *Guidelines for Distance Education.* Chicago, IL: Author. Retrieved February 18, 2001 from the World Wide: http://www.ncahigherlearningcommission.org/resources/guidelines/gdistance.html

Northeast and Islands Regional Educational Laboratory at Brown University. (1999). *Electronic collaboration: A practical guide for educators.* Providence, RI: Author.

Overmyer, S. (1999, October 11). Re: Class size for online learning. *IFETS Mailing List Archive.* Retrieved October 15, 2000 from the World Wide Web: http://ifets.gmd.de/past_archives/archiv_260899_250200/0303.html

Pennsylvania State University. (1997). *Media selection matrix*. University Park, PA: Author. Retrieved September 17, 2000 from the World Wide Web: http://www.outreach.psu.edu/de/id&D/media_selection_matrix.html

Pennsylvania State University. (2000). *Distance education course catalog 2000-2001*. University Park, PA: Author. Retrieved September 8, 2000 from the World Wide Web: http://www.cde.psu.edu/DE/Catalog/information/works.html

Perrin, D.G. (1999). Level of interactivity on the Internet and the Web. *Education at a Distance*, April. Retrieved October 1, 2000 from the World Wide Web: http://www.usdla.org/ED_magazine/April_1999/16_ed_apr_99c.htm

Pirouz, R. (1998). *HTML web magic* (2nd ed.). Indianapolis, IN: New Riders.

Porter, L.R. (1997). *Creating the virtual classroom: Distance learning with the Internet*. New York: John Wiley & Sons.

Preece, J. (2000). *Online communities: Designing usability, supporting sociability*. West Sussex, England: John Wiley & Sons.

Richardson, C.H. (1998). Improving audio quality in distance learning applications. *Fourteenth Annual Conference on Distance Teaching and Learning* (pp. 301-309). Madison: University of Wisconsin System.

Rinaldi, A. (1998). *The Net: User Guidelines and Netiquette*. Retrieved October 22, 2000 from the World Wide Web: http://wise.fau.edu/netiquette/net/genques.txt

Ropel, T. (1997). Preparing print-based distance learning materials in the age of the Web: 34 tips for effective typography, page design, and structured content. *Thirteenth Annual Conference on Distance Teaching and Learning* (pp. 273-281). Madison: University of Wisconsin System.

Russell, T. L. (1999). *The no significant difference phenomenon*. Raleigh: North Carolina State University.

Rutz, E., & Hajek, B. (1998). Collaborative distance learning using interactive video: Lessons learned from the University of Cincinnati/Ohio State University experience. *Fourteenth Annual Conference on Distance Teaching and Learning*. (pp. 315-320). Madison: University of Wisconsin System.

Schifter, C.C. (2000). Compensation models in distance education. *Online Journal of Distance Learning Administration, 3*(1). Retrieved January 5, 2001 from the World Wide Web: http://www.westga.edu/~distance/schifter31.html

Shelly, G. B., Cashman, T. J., & Vermaat, M. E. (1999). *Discovering computers 2000: Concepts for a connected world*. Cambridge, MA: Course Technology.

Shelly, G.B., Cashman, T.J., & Vermaat, M.E. (2000). *Microsoft Office 2000: Introductory concepts and techniques*. Cambridge, MA: Course Technology.

Sinclair, J.T. (1999). *Typography on the Web*. San Diego: Academic Press.

Smeaton, A., & Keogh, G. (1999). An analysis of the use of virtual delivery of undergraduate lectures. *Computers and Education, 32*, 83-94.

Smith, P., & Ragan, T. (1999). *Instructional design* (2nd ed.). New York: Wiley.

Southern Association of Colleges and Schools, Commission on Colleges. (1998). *Criteria for accreditation* (11th ed.). Decatur, GA: Author.

Southern Regional Education Board. (1999). *Principles of good practice*. Atlanta, GA: Author. Retrieved September 30, 2000 from the World Wide Web: http://www.electroniccampus.org/student/srecinfo/publications/principles.asp

Texas A&M University System. (2000). *System regulation 17.02.02: Technology-mediated instruction*. College Station: Author. Retrieved May 18, 2000 from the World Wide Web: http://sago.tamu.edu/policy/17-02-02.htm

U.S. Copyright Office. (1999) *Report on Copyright and Digital Distance Education*. Washington, DC: Author.

U.S. Department of Education. (1997). *Distance education in higher education institutions.* (NCES Publication 97-062). Washington, DC: Author.

U.S. Department of Education. (1998a). *Fall enrollment in postsecondary institutions, 1996.* (NCES Publication 1999-239). Washington, DC: Author.

U.S. Department of Education. (1998b). *Projections of education statistics to 2008.* (NCES Publication 98-016). Washington, DC: Author.

U.S. Department of Education. (1999a). *Distance education at postsecondary education institutions: 1997-98.* (NCES Publication 2000-013). Washington, DC: Author.

U.S. Department of Education. (1999b). *Fall enrollment in postsecondary institutions, 1997.* (NCES Publication 99-162). Washington, DC: Author.

United States Distance Learning Association. (n.d.). *Research information and statistics*. Needhan, MA: Author. Retrieved November 8, 2000 from the World Wide Web: http://www.usdla.org/04_research_info.htm

University of Wisconsin- Extension. (2000). *WisLine teleconferencing service*. Madison, WI: Author. Retrieved December 1, 2000 from the World Wide Web: http://www.uwex.edu/ics/wisline/

University of Wisconsin-Extension, Continuing Education Extension, Distance Education Subgroup. (1999). *Some definitions of distance education*. Madison, WI: Author. Retrieved November 8, 2000 from the World Wide Web: http://www.uwex.edu/disted/definition.html

Verduin, J. R., & Clark, T. A. (1991). *Distance education: The foundations of effective practice*. San Francisco: Jossey-Bass.

Weinman, L., & Green, C. (2000). *Dreamweaver 3 H*O*T hands-on-training*. Berkley, CA: Peachpit Press.

Whatis.com. (2000). *HTML*. Retrieved October 21, 2000 from the World Wide Web: http://www.whatis.com/WhatIs_Definition_Page/0,4152,212286,00.html

Whatis.com. (n.d.). *Chatting*. Retrieved October 18, 2000 from the World Wide Web: http://www.whatis.com/WhatIs_Definition_Page/0,4152,211777,00.html

Williams, J., Lock, A., & Burnett, C. (1996). *Digital video for multimedia: Considerations for capture, use and delivery.* Bristol, United Kingdom: University of Bristol. Retrieved December 1, 2000 from the World Wide Web: http://www.man.ac.uk/MVC/SIMA/digital_video/title.html

Williams, M.L., Paprock, K., & Covington, B. (1999). *Distance learning: The essential guide.* Thousands Oaks, CA: Sage.

Williams, V., & Peters, K. (1997). Faculty incentives for the preparation of web-based instruction. In B.H. Kahn (Ed.) *Web-based instruction* (pp. 107–110). Englewood Cliffs, NJ: Education Technology Publications.

Willis, B., & Dickinson, J. (1997). Distance education and the World Wide Web. In B. H. Kahn (Ed.), *Web-Based Instruction* (pp. 81–84). Englewood Cliffs, NJ: Educational Technology Publications.

Wilson, R. (1999, October 15). Colleges urged to better define academic integrity and to stress its importance. *The Chronicle of Higher Education*, p. A18.

Wisher, R. A., & Priest, A. N. (1998). Cost-effectiveness of audio teletraining for the U.S. Army National Guard. *The American Journal of Distance Education, 12*(1), 38-51.

Wolf, T.E. (1998). Putting interaction into interactive television. *Fourteenth Annual Conference on Distance Teaching and Learning* (pp. 467-472). Madison: University of Wisconsin System.

Wright, H. F. (1998). A comparison of test scores of students in compressed video and traditional classroom instruction. In K. Dooley (Ed.), *Fifth Annual Distance Education Conference Proceedings* (pp. 189-195). College Station: Texas A&M University.

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Additionally, purchasers of this book will be able to access a companion web site that will provide: (a) updated information concerning the topics covered in each chapter, (b) links to counselor preparation-related web sites, (c) links to tutorials for using software tools to support distance learning, and (d) links to web sites of counseling courses.

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